

**CIDER SOLAR FARM  
WETLAND AND STREAM DELINEATION REPORT AND FUNCTION AND VALUE ASSESSMENT**

Appendix E Corps Wetland Determination Data Forms

## **Appendix E CORPS WETLAND DETERMINATION DATA FORMS**



**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/6/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200706\_WL01\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.109889 Long: -78.257162 Datum: NAD83  
 Soil Map Unit Name: Ma NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL01</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

edge of active corn field; vegetation problematic (planted crop)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Water-Stained Leaves (B9)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Aquatic Fauna (B13)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Marl Deposits (B15)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Hydrogen Sulfide Odor (C1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>_____</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Presence of Reduced Iron (C4)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>_____</u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Thin Muck Surface (C7)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Other (Explain in Remarks)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)		<u>_____</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 1\_20200706\_WL01\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td><u>Zea mays</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">8</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Chenopodium album</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Unknown species</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">UNK</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">55 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown sedge species; vegetation disturbed/problematic (planted corn)

## SOIL

Sampling Point: 1\_20200706\_WL01\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 3/1	95	10YR 3/6	5	C	M	Sandy Loam		
6-15	7.5YR 6/2	85	7.5YR 5/8	15	C	M	Sand		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/6/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200706\_WL01\_W2  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
Subregion (LRR or MLRA): LRR L Lat: 43.109832 Long: -78.257415 Datum: NAD83  
Soil Map Unit Name: Ma NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL01</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 1\_20200706\_WL01\_W2

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: 30'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharinum</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Acer rubrum</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">100</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: 15'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: 5'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lysimachia nummularia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">5</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: 30'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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(7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>55</u>	x 2	<u>110</u>	FAC species	<u>50</u>	x 3	<u>150</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>105</u> (A)		<u>260</u> (B)	Prevalence Index = B/A =			<u>2.48</u>
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<u>Acer saccharinum</u>	50	X	FACW																																																																														
<u>Acer rubrum</u>	50	X	FAC																																																																														
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200706\_WL01\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-3	10YR 3/2	100					Loam	
3-8	10YR 2/1	95	10YR 6/2	5	C	M	Sandy Loam	
8-18	10YR 6/2	85	10YR 5/6	15	C	M	Loamy Sand	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☒ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/6/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200706\_WL01\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 0 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.109533 Long: -78.256921 Datum: NAD83  
Soil Map Unit Name: Ma NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No _____	X _____	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No _____ X _____  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No _____	X _____	
Wetland Hydrology Present?	Yes _____	No _____	X _____	

Planted corn field

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 1\_20200706\_WL01\_U1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: right; padding-top: 10px;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: right; padding-top: 10px;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Chenopodium album</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Unknown species</u></td> <td style="text-align: center;">3</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UNK</td> </tr> <tr> <td><u>Rumex crispus</u></td> <td style="text-align: center;">1</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right; padding-top: 10px;">9 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: right; padding-top: 10px;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status					_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>1</u></td> <td>x 3</td> <td style="text-align: center;"><u>3</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>5</u></td> <td>x 4</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>6</u></td> <td>(A)</td> <td style="text-align: center;"><u>23</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.83</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p>_____ 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. 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 Remarks: (Include photo numbers here or on a separate sheet.)  
 Unknown sedge

## SOIL

Sampling Point: 1\_20200706\_WL01\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-20	10YR 2/2	99	10YR 3/6	1	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/6/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200706\_WL02\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.110435 Long: -78.254124 Datum: NAD83  
 Soil Map Unit Name: RoA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL02</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 1\_20200706\_WL02\_W1

<b>Tree Stratum</b>	(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Populus deltoides</u>		45	X	FAC
<u>Salix nigra</u>		25	X	OBL
<u>Acer saccharinum</u>		10		FACW
		80	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: 15'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		5	X	FACW
		5	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: 5'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Lysimachia nummularia</u>		10	X	FACW
<u>Phragmites australis</u>		5	X	FACW
		15	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		15	X	FAC
		15	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 6 (A)  
 Total Number of Dominant  
 Species Across All Strata: 6 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index Worksheet:**

OBL species 25 x 1 25  
 FACW species 30 x 2 60  
 FAC species 60 x 3 180  
 FACU species 0 x 4 0  
 UPL species 0 x 5 0  
 Column Totals 115 (A) 265 (B)  
 Prevalence Index = B/A = 2.3

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200706\_WL02\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 3/2	100						Sandy Loam	
4-12	10YR 6/2	85	10YR 5/6	15	C	M		Loamy Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input checked="" type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/6/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200706\_WL02\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 0 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.110425 Long: -78.254203 Datum: NAD83  
Soil Map Unit Name: RoA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Microtopographic Relief (D4)
____ Sparsely Vegetated Concave Surface (B8)		____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200706\_WL02\_U1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 35%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 35%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 35%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Galium mollugo</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Phragmites australis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Erigeron annuus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Taraxacum officinale</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 35%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Vitis riparia</u>	10	X	FAC	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">OBL species</td> <td style="width: 10%; text-align: center;">0</td> <td style="width: 10%;">x 1</td> <td style="width: 10%; text-align: center;">0</td> <td style="width: 40%;"></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">15</td> <td>x 2</td> <td style="text-align: center;">30</td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">15</td> <td>x 3</td> <td style="text-align: center;">45</td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">78</td> <td>x 4</td> <td style="text-align: center;">312</td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td>x 5</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;">108</td> <td>(A)</td> <td style="text-align: center;">387</td> <td>(B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.58</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	0	x 1	0		FACW species	15	x 2	30		FAC species	15	x 3	45		FACU species	78	x 4	312		UPL species	0	x 5	0		Column Totals	108	(A)	387	(B)	Prevalence Index = B/A =				<u>3.58</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200706\_WL02\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 3/2	100						Sandy Loam	
6-18	10YR 6/2	85	10YR 5/6	15	C	M		Loamy Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input checked="" type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/6/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200706\_WL03\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.110392 Long: -78.255206 Datum: NAD83  
 Soil Map Unit Name: RoA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL03</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)  
drainage ditch situated between two agricultural fields

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
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<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
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<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200706\_WL03\_W1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200706\_WL03\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 3/2	100						Loam	
4-12	10YR 6/2	85	10YR 5/6	15	C	M		Loamy Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input checked="" type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/6/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200706\_WL03\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 1 - 2  
Subregion (LRR or MLRA): LRR L Lat: 43.110431 Long: -78.255254 Datum: NAD83  
Soil Map Unit Name: \_\_\_\_\_ NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of agricultural field

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Microtopographic Relief (D4)
____ Sparsely Vegetated Concave Surface (B8)		____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 1\_20200706\_WL03\_U1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200706\_WL03\_U1

[illegible]

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/7/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200707\_WL4\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.106864 Long: -78.256132 Datum: NAD83  
 Soil Map Unit Name: RoA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL04</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200707\_WL4\_W1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Poa compressa</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Cyperus strigosus</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Unknown species</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">UNK</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">95 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>65</u></td> <td>x 2</td> <td style="text-align: center;"><u>130</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>15</u></td> <td>x 4</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>80</u> (A)</td> <td></td> <td style="text-align: center;"><u>190</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>2.38</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">X</td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>65</u>	x 2	<u>130</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>15</u>	x 4	<u>60</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>80</u> (A)		<u>190</u> (B)	Prevalence Index = B/A = <u>2.38</u>				X	1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass species (recently mowed)

## SOIL

Sampling Point: 1\_20200707\_WL4\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/1	90	10YR 4/6	10	C	M	Loam		
12-16	10YR 3/1	95	10YR 4/6	5	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 7/24/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200724\_WL4\_W2  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.106799 Long: -78.256826 Datum: NAD83  
 Soil Map Unit Name: RoA NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL04</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200724\_WL4\_W2

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
_____	_____	_____	_____	_____
		_____ = Total Cover		

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		<u>75</u>	<u>X</u>	<u>FACW</u>
<u>Rosa multiflora</u>		<u>5</u>		<u>FACU</u>
		<u>80</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Phalaris arundinacea</u>		<u>80</u>	<u>X</u>	<u>FACW</u>
<u>Solidago gigantea</u>		<u>20</u>		<u>FACW</u>
<u>Lysimachia nummularia</u>		<u>15</u>		<u>FACW</u>
<u>Symphotrichum lanceolatum</u>		<u>10</u>		<u>FACW</u>
		<u>125</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
_____	_____	_____	_____	_____
		_____ = Total Cover		

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant  
 Species Across All Strata: 2 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>0</u>	x 1	<u>0</u>
FACW species	<u>200</u>	x 2	<u>400</u>
FAC species	<u>0</u>	x 3	<u>0</u>
FACU species	<u>5</u>	x 4	<u>20</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>205</u>	(A)	<u>420</u> (B)
Prevalence Index = B/A =			<u>2.05</u>

**Hydrophytic Vegetation Indicators:**

☒ 1- Rapid Test For Hydrophytic Vegetation  
☒ 2- Dominance Test is > 50%  
☒ 3- Prevalence Index is =< 3.0  
 \_\_\_\_\_ 4- Morphological Adaptations  
 \_\_\_\_\_ 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes ☒ No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200724\_WL4\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-12	7.5YR	2.5/1 100					Sandy Clay Loam	
12-20	2.5Y	5/1 85	10YR 4/6	15	C	M	Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/24/2020  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20200724\_WL4\_W3  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.107260 Long: -78.257019 Datum: NAD83  
 Soil Map Unit Name: RoA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL04</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u></u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	Wetland Hydrology Present? Yes <u>X</u> No <u></u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200724\_WL4\_W3

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		<u>75</u>	<u>X</u>	<u>FACW</u>
		<u>75</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
			= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Glyceria striata</u>		<u>15</u>	<u>X</u>	<u>OBL</u>
<u>Lysimachia nummularia</u>		<u>15</u>	<u>X</u>	<u>FACW</u>
		<u>30</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
		<u>5</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant  
 Species Across All Strata: 4 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>15</u>	x 1	<u>15</u>
FACW species	<u>90</u>	x 2	<u>180</u>
FAC species	<u>5</u>	x 3	<u>15</u>
FACU species	<u>0</u>	x 4	<u>0</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>110</u>	(A)	<u>210</u> (B)
Prevalence Index = B/A =			<u>1.91</u>

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200724\_WL4\_W3

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color	%	Type	Loc	Texture		
0-4	7.5YR	2.5/1	100					Sandy Loam		
4-14	10YR	3/1	90	5YR 3/4	10	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>										
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:										

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/7/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200707\_WL4\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): None Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.106803 Long: -78.255878 Datum: NAD83  
Soil Map Unit Name: \_\_\_\_\_ NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) hay field, recently mowed.	

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)
Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes _____ No <u>X</u>	
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____		
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200707\_WL4\_U1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td><u>Poa pratensis</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Lolium perenne</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Unknown species</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UNK</td> </tr> <tr> <td><u>Trifolium repens</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Plantago major</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Trifolium pratense</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">95 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status	<u>Poa pratensis</u>	20	X	FACU	<u>Lolium perenne</u>	20	X	FACU	<u>Unknown species</u>	20	X	UNK	<u>Trifolium repens</u>	15		FACU	<u>Plantago major</u>	10		FACU	<u>Trifolium pratense</u>	5		FACU	<u>Solidago canadensis</u>	5		FACU		95 = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)                      Total Number of Dominant Species Across All Strata: <u>3</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>75</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>300</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>75</u> (A)</td> <td></td> <td style="text-align: center;"><u>300</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>1-</u> Rapid Test For Hydrophytic Vegetation  <u>2-</u> Dominance Test is &gt; 50%  <u>3-</u> Prevalence Index is =&lt; 3.0  <u>4-</u> Morphological Adaptations  <u>5-</u> Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass (mowed recently)

## SOIL

Sampling Point: 1\_20200707\_WL4\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 3/2	100					Clay Loam	
6-13	10YR 3/1	99	10YR 3/4	1	C	M	Clay Loam	
13-20	10YR 5/1	80	10YR 5/6	20	C	M	Clay	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/7/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200707\_WL05\_W1  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.102705 Long: -78.255315 Datum: NAD83  
Soil Map Unit Name: La NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL05_W1</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Drainage ditch

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200707\_WL05\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Sambucus racemosa</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">35 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Rumex crispus</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Asclepias incarnata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Cicuta maculata</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Symphotrichum urophyllum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td colspan="4" style="text-align: right;">65 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200707\_WL05\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/1	70	10YR 4/6	30	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/7/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200709\_WL05\_U1  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%) 0 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.102842 Long: -78.255215 Datum: NAD83  
Soil Map Unit Name: La NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of agricultural field, disturbed

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)	____ FAC-Neutral Test (D5)
____ Water-Stained Leaves (B9)	
____ Aquatic Fauna (B13)	
____ Marl Deposits (B15)	
____ Hydrogen Sulfide Odor (C1)	
____ Oxidized Rhizospheres on Living Roots (C3)	
____ Presence of Reduced Iron (C4)	
____ Recent Iron Reduction in Tilled Soils (C6)	
____ Thin Muck Surface (C7)	
____ Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL05\_U1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200709\_WL05\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-18	10YR 3/2	100					Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>X</u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/7/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200707\_WL6\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Linear Slope (%) 2 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.108082 Long: -78.242825 Datum: NAD83  
 Soil Map Unit Name: Ma NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL06</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

depressional wetland in active soy bean field; vegetation problematic

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 1\_20200707\_WL6\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;">Glycine max</td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200707\_WL6\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-5	10YR 3/2	100					Loam	
5-9	10YR 3/1	95	10YR 4/6	5	C	M	Loam	
9-16	10YR 4/1	90	10YR 4/1	10	C	M	Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/7/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200707\_WL6\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.108083 Long: -78.242820 Datum: NAD83  
Soil Map Unit Name: Ma NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) active soy bean field	

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
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<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)
Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes _____ No <u>X</u>	
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____		
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200707\_WL6\_U1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;">Glyciene max</td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Column Totals	<u>15</u>	(A)	<u>75</u> (B)																																																																										
Prevalence Index = B/A =			<u>5</u>																																																																										

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200707\_WL6\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 3/2	100					Loam	
6-14	10YR 3/1	100					Clay Loam	
14-20	10YR 4/1	90	10YR 4/4	10	C	M	Clay	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/8/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 1\_20200708\_WL07\_W1  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 10  
Subregion (LRR or MLRA): LRR L Lat: 43.099916 Long: -78.261152 Datum: NAD83  
Soil Map Unit Name: OdA NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL07</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Riparian area to stream

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u>X</u> No _____	Depth (inches) <u>1</u>
Water Table Present? Yes <u>X</u> No _____	Depth (inches) <u>0</u>
Saturation Present? Yes <u>X</u> No _____	Depth (inches) <u>0</u>

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200708\_WL07\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer negundo</u></td> <td style="text-align: center;"><u>20</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>20</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus amomum</u></td> <td style="text-align: center;"><u>40</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>65</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;"><u>40</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>OBL</u></td> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;"><u>40</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>80</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Acer negundo</u>	<u>20</u>	<u>X</u>	<u>FAC</u>		<u>20</u>	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Cornus amomum</u>	<u>40</u>	<u>X</u>	<u>FACW</u>	<u>Cornus racemosa</u>	<u>25</u>	<u>X</u>	<u>FAC</u>		<u>65</u>	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Typha angustifolia</u>	<u>40</u>	<u>X</u>	<u>OBL</u>	<u>Symphotrichum lanceolatum</u>	<u>40</u>	<u>X</u>	<u>FACW</u>		<u>80</u>	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						_____ = Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)                      Total Number of Dominant Species Across All Strata: <u>5</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>40</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>80</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>160</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>45</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>135</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>165</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>335</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.03</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">_____ 1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td><u>X</u> 2- Dominance Test is &gt; 50%</td> </tr> <tr> <td><u>X</u> 3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td>_____ 4- Morphological Adaptations</td> </tr> <tr> <td>_____ 5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>40</u>	x 1	<u>40</u>	FACW species	<u>80</u>	x 2	<u>160</u>	FAC species	<u>45</u>	x 3	<u>135</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>165</u>	(A)	<u>335</u> (B)	Prevalence Index = B/A =			<u>2.03</u>	_____ 1- Rapid Test For Hydrophytic Vegetation	<u>X</u> 2- Dominance Test is > 50%	<u>X</u> 3- Prevalence Index is =< 3.0	_____ 4- Morphological Adaptations	_____ 5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200708\_WL07\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-5	10YR 5/1	70	10YR 4/6	30	C	M	Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/7/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200708\_WL07\_W2  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.098942 Long: -78.266750 Datum: NAD83  
 Soil Map Unit Name: OdA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL07</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>  X  </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>  X  </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>  X  </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200708\_WL07\_W2

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Salix interior</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Poa palustris</u></td> <td style="text-align: center;">90</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Agrostis gigantea</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Alisma plantago-aquatica</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Asclepias incarnata</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200708\_WL07\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-2	10YR 3/2	100						Loam	
2-12	10YR 5/1	65	7.5YR 5/6	35	C	M		Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/7/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andy Smith Section, Township, Range: \_\_\_\_\_ 1\_20200708\_WL07\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 5 - 15  
Subregion (LRR or MLRA): LRR L Lat: 43.099862 Long: -78.261138 Datum: NAD83  
Soil Map Unit Name: OdA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)	____ FAC-Neutral Test (D5)
____ Water-Stained Leaves (B9)	
____ Aquatic Fauna (B13)	
____ Marl Deposits (B15)	
____ Hydrogen Sulfide Odor (C1)	
____ Oxidized Rhizospheres on Living Roots (C3)	
____ Presence of Reduced Iron (C4)	
____ Recent Iron Reduction in Tilled Soils (C6)	
____ Thin Muck Surface (C7)	
____ Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200708\_WL07\_U1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200708\_WL07\_U1

Depth (inches)	Matrix		Redox Features				Remarks	
	Color	%	Color	%	Type	Loc		Texture
0-12	10YR 3/2	100					Silt Loam	
<div><div><b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)</div><div><input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)</div><div><b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)</div></div>								
<b>Restrictive Layer (if observed):</b>  Type: <u>Rock</u> Depth (inches): <u>12</u>							Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/8/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200708\_WL08\_W1  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
Subregion (LRR or MLRA): LRR L Lat: 43.106040 Long: -78.270946 Datum: NAD83  
Soil Map Unit Name: PhB NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL08</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of agricultural field, no crops growing in wetland area

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200708\_WL08\_W1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Eleocharis obtusa</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">50 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>50</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>50</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>75</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.5</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">X</td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>25</u>	x 1	<u>25</u>	FACW species	<u>25</u>	x 2	<u>50</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>50</u>	(A)	<u>75</u> (B)	Prevalence Index = B/A =			<u>1.5</u>	X	1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200708\_WL08\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-3	10YR 4/2	90	10YR 5/8	10	C	M	Clay Loam	
3-13	10YR 5/1	80	10YR 4/6	20	C	M	Clay Loam	
13-18	10YR 6/1	70	10YR 5/8	30	C	M	Clay	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/8/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andy Smith Section, Township, Range: \_\_\_\_\_ Point: 1\_0200708\_WL08\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 2 - 4  
Subregion (LRR or MLRA): LRR L Lat: 43.106006 Long: -78.270827 Datum: NAD83  
Soil Map Unit Name: PhB NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_0200708\_WL08\_U1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_0200708\_WL08\_U1

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color	%	Type	Loc	Texture		
0-10	10YR 6/3		80	10YR 5/4	20	C	M	Loam		
<div><div><div>Hydric Soil Indicators:</div><div><div><div><div><div><div></div></div>Histosol (A1)</div><div><div><div></div></div>Histic Epipedon (A2)</div><div><div><div></div></div>Black Histic (A3)</div><div><div><div></div></div>Hydrogen Sulfide (A4)</div><div><div><div></div></div>Stratified Layers (A5)</div><div><div><div></div></div>Depleted Below Dark Surface (A11)</div><div><div><div></div></div>Thick Dark Surface (A12)</div><div><div><div></div></div>Sandy Mucky Mineral (S1)</div><div><div><div></div></div>Sandy Gleyed Matrix (S4)</div><div><div><div></div></div>Sandy Redox (S5)</div><div><div><div></div></div>Stripped Matrix (S6)</div><div><div><div></div></div>Dark Surface (S7)</div></div></div><div><div>Polyvalue Below Surface (B15)</div><div>Thin Dark Surface (S9)</div><div>Loamy Mucky Mineral (F1)</div><div>Loamy Gleyed Matric (F2)</div><div>Depleted Matrix (F3)</div><div>Redox Dark Surface (F6)</div><div>Depleted Dark Surface (F7)</div><div>Redox Depressions (F8)</div></div></div><div><div>Indicators for Problematic Soils:</div><div><div>2 cm Muck (A10)</div><div>Coast Prarie Redox (A16)</div><div>5 cm Mucky Peat or Peat (S3)</div><div>Dark Surface (S7)</div><div>Polyvalue Below Surface (S8)</div><div>Thin Dark Surface (S9)</div><div>Iron-Manganese Masses (F12)</div><div>Piedmont Floodplain Soils (F19)</div><div>Mesic Spodic (TA6)</div><div>Red Parent Material (F21)</div><div>Very Shallow Dark Surface (TF12)</div><div>Other (Explain in Remarks)</div></div></div></div></div>										
<div>Restrictive Layer (if observed):<div>Type: Rock<div>Depth (inches): 10</div></div></div>								<div>Hydric Soil Present?    Yes _____ No ____X____</div>		
Remarks: <div></div>										

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/9/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200709\_WL09\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.107164 Long: -78.260358 Datum: NAD83  
 Soil Map Unit Name: Ma NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL09</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>  X  </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>  X  </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>  X  </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL09\_W1

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	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																										
_____	_____	_____	_____																																																																																																										
_____ = Total Cover																																																																																																													
OBL species	<u>23</u>	x 1	<u>23</u>																																																																																																										
FACW species	<u>100</u>	x 2	<u>200</u>																																																																																																										
FAC species	<u>0</u>	x 3	<u>0</u>																																																																																																										
FACU species	<u>8</u>	x 4	<u>32</u>																																																																																																										
UPL species	<u>5</u>	x 5	<u>25</u>																																																																																																										
Column Totals	<u>136</u>	(A)	<u>280</u> (B)																																																																																																										
Prevalence Index = B/A = <u>2.06</u>																																																																																																													

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200709\_WL09\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 2/1	95	10YR 4/6	5	C	PL	Sandy Loam		
8-15	10YR 5/1	85	10YR 5/8	15	C	M	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/9/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andy Smith Section, Township, Range: \_\_\_\_\_ Point: 1\_20200709\_WL09\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.107061 Long: -78.260631 Datum: NAD83  
Soil Map Unit Name: Ma NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL09\_U1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Zea mays</u></td> <td style="text-align: center;">90</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Cyperus strigosus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">95 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Zea mays</u>	90	X	UPL	<u>Cyperus strigosus</u>	5		FACW	95 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>1</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>5</u></td> <td>x 2</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>90</u></td> <td>x 5</td> <td style="text-align: center;"><u>450</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>95</u></td> <td>(A)</td> <td style="text-align: center;"><u>460</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4.84</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p>_____ 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes _____ No <u>X</u></p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>5</u>	x 2	<u>10</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>90</u>	x 5	<u>450</u>	Column Totals	<u>95</u>	(A)	<u>460</u> (B)	Prevalence Index = B/A =			<u>4.84</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200709\_WL09\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-12	10YR 3/1	100					Silty Clay Loam	
12-18	10YR 5/1	90	10YR 5/8	10	C	M	Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/9/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200709\_WL10\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.101376 Long: -78.256767 Datum: NAD83  
 Soil Map Unit Name: La NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL10</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)  
 edge of agricultural field

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL10\_W1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200709\_WL10\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	10YR 3/2	100						Clay Loam	
3-8	10YR 3/1	95	10YR 4/6	5	C	M		Clay Loam	
8-16	7.5YR 4/4	40	7.5YR 5/8	60	C	M		Clay	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Genessee</u>	Sampling Date: <u>7/9/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: _____	Point: <u>1_20200709_WL10_U1</u>
Landform (hillslope, terrace, etc.): <u>Rise</u>	Local relief (concave, convex, none): <u>Convex</u>	Slope (%) <u>0 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.101396</u>	Long: <u>-78.257187</u>
Soil Map Unit Name: <u>La</u>	Datum: <u>NAD83</u>	
Soil Map Unit Name: <u>La</u>		NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL10\_U1

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<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/9/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200709\_WL11\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 10  
 Subregion (LRR or MLRA): LRR L Lat: 43.089847 Long: -78.275840 Datum: NAD83  
 Soil Map Unit Name: OvA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL11</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Agricultural field drainage

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL11\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Leersia oryzoides</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Bidens frondosa</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">33 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>25</u></td> <td>x 1</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>8</u></td> <td>x 2</td> <td style="text-align: center;"><u>16</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>33</u></td> <td>(A)</td> <td style="text-align: center;"><u>41</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.24</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>X 1- Rapid Test For Hydrophytic Vegetation</p> <p>X 2- Dominance Test is &gt; 50%</p> <p>X 3- Prevalence Index is =&lt; 3.0</p> <p>4- Morphological Adaptations</p> <p>5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	<u>25</u>	x 1	<u>25</u>	FACW species	<u>8</u>	x 2	<u>16</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>33</u>	(A)	<u>41</u> (B)	Prevalence Index = B/A =			<u>1.24</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200709\_WL11\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-5	5YR 5/2	90	5YR 5/8	10	C	PL	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/9/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200709\_WL11\_U1  
Landform (hillslope, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope (%) 0 - 45  
Subregion (LRR or MLRA): LRR L Lat: 43.089877 Long: -78.275804 Datum: NAD83  
Soil Map Unit Name: OvA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL11\_U1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200709\_WL11\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-8	7.5YR 3/2	100					Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/9/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200709\_WL12\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 10  
 Subregion (LRR or MLRA): LRR L Lat: 43.091616 Long: -78.276189 Datum: NAD83  
 Soil Map Unit Name: La NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL12</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL12\_W1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200709\_WL12\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	7.5YR 4/2	85	7.5YR 5/6	15	C	M	Clay Loam		
3-7	5YR 5/2	80	5YR 5/8	20	C	M	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: Gravel Fill Depth (inches): 7							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/9/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200709\_WL12\_U1  
Landform (hillslope, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope (%) 0 - 45  
Subregion (LRR or MLRA): LRR L Lat: 43.091599 Long: -78.276210 Datum: NAD83  
Soil Map Unit Name: La NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL12\_U1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Agrostis gigantea</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Centaurea nigra</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Geum canadense</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">80 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>25</u></td> <td>x 2</td> <td style="text-align: center;"><u>50</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td>x 3</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>25</u></td> <td>x 4</td> <td style="text-align: center;"><u>100</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>25</u></td> <td>x 5</td> <td style="text-align: center;"><u>125</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>80</u> (A)</td> <td></td> <td style="text-align: center;"><u>290</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>3.62</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p>_____ 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes _____ No <u>X</u></p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>25</u>	x 2	<u>50</u>	FAC species	<u>5</u>	x 3	<u>15</u>	FACU species	<u>25</u>	x 4	<u>100</u>	UPL species	<u>25</u>	x 5	<u>125</u>	Column Totals	<u>80</u> (A)		<u>290</u> (B)	Prevalence Index = B/A = <u>3.62</u>			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200709\_WL12\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-8	7.5YR	3/2 100					Clay Loam	
<div><div><b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)</div><div><input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)</div><div><b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)</div></div>								
<b>Restrictive Layer (if observed):</b>  Type: Gravel Fill Depth (inches): 8							Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/9/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200709\_WL13\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.091516 Long: -78.274663 Datum: NAD83  
 Soil Map Unit Name: GnA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL13</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes <u>X</u> No _____ Depth (inches) <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL13\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td><u>Ludwigia palustris</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Bidens frondosa</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">30 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status	<u>Ludwigia palustris</u>	25	X	OBL	<u>Bidens frondosa</u>	5		FACW		30 = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>30</u> (A)</td> <td></td> <td style="text-align: center;"><u>35</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>1.17</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">X</td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200709\_WL13\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-8	10YR 5/1	60	10YR 5/8	40	C	M	Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/9/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200710\_WL13\_W2  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 2 - 4  
Subregion (LRR or MLRA): LRR L Lat: 43.090548 Long: -78.273061 Datum: NAD83  
Soil Map Unit Name: GnA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL13</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

corn field

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 5  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 3

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200710\_WL13\_W2

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Cyperus strigosus</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: right;">17 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status							_____ = Total Cover		<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>1</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>2</u></td> <td>x 2</td> <td style="text-align: center;"><u>4</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>15</u></td> <td>x 5</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>17</u></td> <td>(A)</td> <td style="text-align: center;"><u>79</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4.65</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p>_____ 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: right;">Hydrophytic Vegetation Present? Yes _____ No <u>X</u></p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>2</u>	x 2	<u>4</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>15</u>	x 5	<u>75</u>	Column Totals	<u>17</u>	(A)	<u>79</u> (B)	Prevalence Index = B/A =			<u>4.65</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200710\_WL13\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 5/2	80	10YR 5/6	20	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/9/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200709\_WL13\_U1  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.091540 Long: -78.274772 Datum: NAD83  
Soil Map Unit Name: GnA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of field, recent ground disturbance

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
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<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) 0

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200709\_WL13\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td><u>Solidago canadensis</u></td> <td><u>40</u></td> <td><u>X</u></td> <td><u>FACU</u></td> </tr> <tr> <td><u>Agrostis gigantea</u></td> <td><u>15</u></td> <td></td> <td><u>FACW</u></td> </tr> <tr> <td><u>Lotus corniculatus</u></td> <td><u>10</u></td> <td></td> <td><u>FACU</u></td> </tr> <tr> <td><u>Equisetum arvense</u></td> <td><u>5</u></td> <td></td> <td><u>FAC</u></td> </tr> <tr> <td><u>Artemisia vulgaris</u></td> <td><u>5</u></td> <td></td> <td><u>UPL</u></td> </tr> <tr> <td><u>Trifolium repens</u></td> <td><u>5</u></td> <td></td> <td><u>FACU</u></td> </tr> <tr> <td colspan="4" style="text-align: right;"><u>80</u> = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200709\_WL13\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-7	10YR 4/1	85	10YR 5/8	15	C	M	Clay Loam	
7-12	10YR 5/1	60	10YR 5/8	40	C	M	Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>X</u>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 10/8/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200710\_WL15\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.090927 Long: -78.271248 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL15</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)  
 riparian to pond

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200710\_WL15\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">60</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Bidens frondosa</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Impatiens capensis</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Alisma subcordatum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Agrostis gigantea</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Euthamia graminifolia</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Asclepias incarnata</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">83</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Prevalence Index = B/A =			<u>2.01</u>																																																																																																						

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200710\_WL15\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-3	10YR 2/2	100					Sandy Loam	
3-12	10YR 4/1	90	10YR 5/6	10	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/14/2020  
Applicant/Owner: Hecate State: NY Sampling Point: Upland-WL15  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.095836 Long: -78.185447 Datum: NAD83  
Soil Map Unit Name: OdA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Upland-WL15**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Zea mays</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Asclepias syriaca</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Leucanthemum vulgare</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Rumex crispus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">140 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Zea mays</u>	60	X	UPL	<u>Abutilon theophrasti</u>	25	X	FACU	<u>Alliaria petiolata</u>	20		FACU	<u>Daucus carota</u>	10		UPL	<u>Asclepias syriaca</u>	10		UPL	<u>Leucanthemum vulgare</u>	10		UPL	<u>Rumex crispus</u>	5		FAC	140 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>45</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>180</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>90</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>450</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>140</u> (A)</td> <td></td> <td style="text-align: center;"><u>645</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4.61</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>1-</u> Rapid Test For Hydrophytic Vegetation  <u>2-</u> Dominance Test is &gt; 50%  <u>3-</u> Prevalence Index is =&lt; 3.0  <u>4-</u> Morphological Adaptations  <u>5-</u> Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes _____ No <u>X</u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>5</u>	x 3	<u>15</u>	FACU species	<u>45</u>	x 4	<u>180</u>	UPL species	<u>90</u>	x 5	<u>450</u>	Column Totals	<u>140</u> (A)		<u>645</u> (B)	Prevalence Index = B/A =			<u>4.61</u>
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Remarks: (Include photo numbers here or on a separate sheet.)																																																																																																					

## SOIL

Sampling Point: **Upland-WL15**

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 4/2	95	7.5YR 5/8	5	C	PL	Silty Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: <u>Rock</u> Depth (inches): <u>10</u>							Hydric Soil Present?    Yes <u>X</u> No <u>      </u>		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 7/10/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200710\_WL16\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.091146 Long: -78.270969 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL16</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)  
edge of corn field

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes <u>X</u> No _____ Depth (inches) <u>6</u>	
Saturation Present? Yes <u>X</u> No _____ Depth (inches) <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200710\_WL16\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; border-bottom: 1px solid black;"></td> <td style="width: 33%; border-bottom: 1px solid black;"></td> <td style="width: 33%; border-bottom: 1px solid black;"></td> </tr> <tr> <td></td> <td style="text-align: center;">= Total Cover</td> <td></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; border-bottom: 1px solid black;"></td> <td style="width: 33%; border-bottom: 1px solid black;"></td> <td style="width: 33%; border-bottom: 1px solid black;"></td> </tr> <tr> <td></td> <td style="text-align: center;">= Total Cover</td> <td></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; border-bottom: 1px solid black;"><u>Zea mays</u></td> <td style="width: 33%; border-bottom: 1px solid black; text-align: center;">15</td> <td style="width: 33%; border-bottom: 1px solid black; text-align: center;">X</td> </tr> <tr> <td></td> <td style="text-align: center;">15</td> <td style="text-align: center;">= Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; border-bottom: 1px solid black;"></td> <td style="width: 33%; border-bottom: 1px solid black;"></td> <td style="width: 33%; border-bottom: 1px solid black;"></td> </tr> <tr> <td></td> <td style="text-align: center;">= Total Cover</td> <td></td> </tr> </table> </div>					= Total Cover						= Total Cover		<u>Zea mays</u>	15	X		15	= Total Cover					= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>75</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>5</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>        </u> No <u>X</u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>15</u>	x 5	<u>75</u>	Column Totals	<u>15</u>	(A)	<u>75</u> (B)	Prevalence Index = B/A =			<u>5</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200710\_WL16\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 5/2	80	10YR 5/6	20	C	M	Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/14/2020  
Applicant/Owner: Hecate State: NY Sampling Point: Upland-WL16  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.103463 Long: -78.164127 Datum: NAD83  
Soil Map Unit Name: Ld NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Upland-WL16**

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Acer rubrum</u>		40	X	FAC
<u>Fagus grandifolia</u>		30	X	FACU
		70	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
			= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Alliaria petiolata</u>		40	X	FACU
<u>Menispermum canadense</u>		30	X	FAC
<u>Phalaris arundinacea</u>		10		FACW
<u>Oxalis corniculata</u>		5		FACU
		85	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		15	X	FAC
		15	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant  
 Species Across All Strata: 5 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 60% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0  
 FACW species 10 x 2 20  
 FAC species 85 x 3 255  
 FACU species 75 x 4 300  
 UPL species 0 x 5 0  
 Column Totals 170 (A) 575 (B)  
 Prevalence Index = B/A = 3.38

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation  
X
- 2- Dominance Test is > 50%
- 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: **Upland-WL16**

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-10	10YR 4/3	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: <u>Rock</u> Depth (inches): <u>10</u>							Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 7/10/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200710\_WL17\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 15  
 Subregion (LRR or MLRA): LRR L Lat: 43.091589 Long: -78.264761 Datum: NAD83  
 Soil Map Unit Name: Wy NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL17</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Associated with stream

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u>X</u> Drainage Patterns (B10)
_____ Water-Stained Leaves (B9)	_____ Moss Trim Lines (B16)
_____ High Water Table (A2)	_____ Dry-Season Water Table (C2)
_____ Saturation (A3)	_____ Crayfish Burrows (C8)
_____ Water Marks (B1)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Sediment Deposits (B2)	_____ Stunted or Stressed Plants (D1)
_____ Drift Deposits (B3)	<u>X</u> Geomorphic Position (D2)
_____ Algal Mat or Crust (B4)	_____ Shallow Aquitard (D3)
_____ Iron Deposits (B5)	_____ Microtopographic Relief (D4)
_____ Inundation Visible on Aerial Imagery (B7)	<u>X</u> FAC-Neutral Test (D5)
_____ Sparsley Vegetated Concave Surface (B8)	

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 3  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200710\_WL17\_W1

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**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matric (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

**Remarks:**

Assumed hydric due to primary hydrology indicators and doinant obligate and FACW veg.

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/10/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200710\_WL17\_W2  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%) 0 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.091594 Long: -78.264762 Datum: NAD83  
Soil Map Unit Name: Wy NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL17</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Disturbed area

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200710\_WL17\_W2

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<u>Solidago canadensis</u>	<u>25</u>	<u>X</u>	<u>FACU</u>																																																																																																										
<u>Symphotrichum lanceolatum</u>	<u>10</u>		<u>FACW</u>																																																																																																										
<u>Impatiens pallida</u>	<u>10</u>		<u>FACW</u>																																																																																																										
<u>Scirpus atrovirens</u>	<u>8</u>		<u>OBL</u>																																																																																																										
<u>Juncus effusus</u>	<u>8</u>		<u>OBL</u>																																																																																																										
<u>Cirsium arvense</u>	<u>5</u>		<u>FACU</u>																																																																																																										
<u>Cirsium vulgare</u>	<u>3</u>		<u>FACU</u>																																																																																																										
	<u>129</u>	= Total Cover																																																																																																											
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																										
<u>Vitis riparia</u>	<u>10</u>	<u>X</u>	<u>FAC</u>																																																																																																										
	<u>10</u>	= Total Cover																																																																																																											
OBL species	<u>16</u>	x 1	<u>16</u>																																																																																																										
FACW species	<u>55</u>	x 2	<u>110</u>																																																																																																										
FAC species	<u>45</u>	x 3	<u>135</u>																																																																																																										
FACU species	<u>33</u>	x 4	<u>132</u>																																																																																																										
UPL species	<u>0</u>	x 5	<u>0</u>																																																																																																										
Column Totals	<u>149</u>	(A)	<u>393</u> (B)																																																																																																										
Prevalence Index = B/A =			<u>2.64</u>																																																																																																										

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200710\_WL17\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 3/1	90	10YR 5/6	10	C	M	Clay Loam	
6-12	10YR 5/1	80	10YR 5/8	20	C	M	Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/10/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200710\_WL 17\_W3  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.091961 Long: -78.267903 Datum: NAD83  
 Soil Map Unit Name: Wy NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL17</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200710\_WL 17\_W3

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharinum</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Quercus macrocarpa</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">80</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rubus idaeus</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Euthamia graminifolia</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Geum canadense</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">65</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus inserta</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">15</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Acer saccharinum</u>	60	X	FACW	<u>Fraxinus pennsylvanica</u>	10		FACW	<u>Quercus macrocarpa</u>	10		FACU		80	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Rubus idaeus</u>	10	X	FACU		10	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Euthamia graminifolia</u>	40	X	FAC	<u>Symphotrichum lanceolatum</u>	10		FACW	<u>Alliaria petiolata</u>	10		FACU	<u>Geum canadense</u>	5		FAC		65	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Parthenocissus inserta</u>	10	X	FACU	<u>Vitis riparia</u>	5	X	FAC		15	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>5</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>80</u></td> <td>x 2</td> <td style="text-align: center;"><u>160</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>50</u></td> <td>x 3</td> <td style="text-align: center;"><u>150</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>40</u></td> <td>x 4</td> <td style="text-align: center;"><u>160</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>170</u></td> <td>(A)</td> <td style="text-align: center;"><u>470</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.76</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td style="text-align: center;"><u></u></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td style="text-align: center;"><u></u></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>80</u>	x 2	<u>160</u>	FAC species	<u>50</u>	x 3	<u>150</u>	FACU species	<u>40</u>	x 4	<u>160</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>170</u>	(A)	<u>470</u> (B)	Prevalence Index = B/A =			<u>2.76</u>		1- Rapid Test For Hydrophytic Vegetation	<u>X</u>	2- Dominance Test is > 50%	<u>X</u>	3- Prevalence Index is =< 3.0	<u></u>	4- Morphological Adaptations	<u></u>	5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200710\_WL 17\_W3

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-8	10YR 3/1	98	10YR 4/5	2	C	M	Clay Loam	
8-15	10YR 5/1	90	10YR 5/1	10	C	M	Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/10/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200710\_WL17\_U1  
Landform (hillslope, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope (%) 3 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.091684 Long: -78.264863 Datum: NAD83  
Soil Map Unit Name: Wy NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
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<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200710\_WL17\_U1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rubus idaeus</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">8</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Ulmus americana</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">33 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cirsium arvense</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Arctium minus</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">75 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">10 = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Vitis riparia</u>	10	X	FAC	10 = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>6</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16.7%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>5</u></td> <td>x 2</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>10</u></td> <td>x 3</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>103</u></td> <td>x 4</td> <td style="text-align: center;"><u>412</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>118</u></td> <td>(A)</td> <td style="text-align: center;"><u>452</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.83</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p>_____ 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200710\_WL17\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-3	10YR 3/1	100					Sandy Clay Loam	
3-12	10YR 3/2	95	10YR 5/6	5	C	M	Sandy Clay Loam	
12-18	10YR 4/2	90	10YR 5/8	10	C	M	Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/13/2020  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range: 1\_2020073\_WL18\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.088360 Long: -78.247405 Datum: NAD83  
 Soil Map Unit Name: RSA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL18</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u></u> Surface Water (A1)	<u></u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u></u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes  No X Depth (inches)   
 Water Table Present? Yes  No X Depth (inches)   
 Saturation Present? Yes  No X Depth (inches)

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_2020073\_WL18\_W1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Populus deltoides</u>		<u>15</u>	<u>X</u>	<u>FAC</u>
		<u>15</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
_____		_____		
		_____	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Phalaris arundinacea</u>		<u>70</u>	<u>X</u>	<u>FACW</u>
<u>Phragmites australis</u>		<u>10</u>		<u>FACW</u>
<u>Agrostis gigantea</u>		<u>5</u>		<u>FACW</u>
<u>Asclepias incarnata</u>		<u>3</u>		<u>OBL</u>
<u>Carex vulpinoidea</u>		<u>3</u>		<u>OBL</u>
		<u>91</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
		<u>5</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant  
 Species Across All Strata: 3 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>6</u>	x 1	<u>6</u>
FACW species	<u>85</u>	x 2	<u>170</u>
FAC species	<u>20</u>	x 3	<u>60</u>
FACU species	<u>0</u>	x 4	<u>0</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>111</u>	(A)	<u>236</u> (B)
Prevalence Index = B/A =			<u>2.13</u>

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_2020073\_WL18\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-2	10YR 2/1	100					Sandy Loam	
2-9	10YR 3/1	95	10YR 5/6	5	C	M	Sandy Loam	
9-16	10YR 5/2	85	10YR 5/8	15	C	M	Loamy Sand	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/13/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200713\_WL18\_W2  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.088176 Long: -78.247515 Datum: NAD83  
Soil Map Unit Name: RSA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL18</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200713\_WL18\_W2

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Populus deltoides</u>		<u>25</u>	<u>X</u>	<u>FAC</u>
<u>Fraxinus pennsylvanica</u>		<u>20</u>	<u>X</u>	<u>FACW</u>
		<u>45</u>	<u>= Total Cover</u>	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Cornus amomum</u>		<u>60</u>	<u>X</u>	<u>FACW</u>
<u>Lonicera tatarica</u>		<u>15</u>	<u>X</u>	<u>FACU</u>
		<u>75</u>	<u>= Total Cover</u>	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Symphotrichum lanceolatum</u>		<u>15</u>	<u>X</u>	<u>FACW</u>
<u>Ranunculus acris</u>		<u>5</u>		<u>FAC</u>
<u>Urtica dioica</u>		<u>3</u>		<u>FAC</u>
<u>Viburnum dentatum</u>		<u>3</u>		<u>FAC</u>
		<u>26</u>	<u>= Total Cover</u>	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus inserta</u>		<u>5</u>	<u>X</u>	<u>FACU</u>
		<u>5</u>	<u>= Total Cover</u>	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant  
 Species Across All Strata: 6 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 66.7% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>0</u>	x 1	<u>0</u>
FACW species	<u>95</u>	x 2	<u>190</u>
FAC species	<u>36</u>	x 3	<u>108</u>
FACU species	<u>20</u>	x 4	<u>80</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>151</u>	(A)	<u>378</u> (B)
Prevalence Index = B/A =			<u>2.5</u>

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200713\_WL18\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-3	10YR 2/2	100					Sandy Loam	
3-9	10YR 3/1	95	10YR 5/6	5	C	M	Sandy Loam	
9-16	10YR 5/2	85	10YR 5/8	15	C	M	Loamy Sand	
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input checked="" type="checkbox"/> Depleted Matrix (F3)  <input checked="" type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/15/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range: _____	Point: <u>1_20200713_WL18_U1</u>
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.100398</u>	Long: <u>-78.157093</u>
Soil Map Unit Name: <u>RsA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200713\_WL18\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharinum</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Persicaria virginiana</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Prunella vulgaris</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">65</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200713\_WL18\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-18	10YR 3/6	100					Silty Clay Loam		
<div><div>Hydric Soil Indicators:</div><div><div><div><div><div></div></div>Histosol (A1)</div><div><div><div></div></div>Histic Epipedon (A2)</div><div><div><div></div></div>Black Histic (A3)</div><div><div><div></div></div>Hydrogen Sulfide (A4)</div><div><div><div></div></div>Stratified Layers (A5)</div><div><div><div></div></div>Depleted Below Dark Surface (A11)</div><div><div><div></div></div>Thick Dark Surface (A12)</div><div><div><div></div></div>Sandy Mucky Mineral (S1)</div><div><div><div></div></div>Sandy Gleyed Matrix (S4)</div><div><div><div></div></div>Sandy Redox (S5)</div><div><div><div></div></div>Stripped Matrix (S6)</div><div><div><div></div></div>Dark Surface (S7)</div></div><div><div>Polyvalue Below Surface (B15)</div><div>Thin Dark Surface (S9)</div><div>Loamy Mucky Mineral (F1)</div><div>Loamy Gleyed Matric (F2)</div><div>Depleted Matrix (F3)</div><div>Redox Dark Surface (F6)</div><div>Depleted Dark Surface (F7)</div><div>Redox Depressions (F8)</div></div><div><div>Indicators for Problematic Soils:</div><div><div><div></div></div>2 cm Muck (A10)</div><div><div><div></div></div>Coast Prarie Redox (A16)</div><div><div><div></div></div>5 cm Mucky Peat or Peat (S3)</div><div><div><div></div></div>Dark Surface (S7)</div><div><div><div></div></div>Polyvalue Below Surface (S8)</div><div><div><div></div></div>Thin Dark Surface (S9)</div><div><div><div></div></div>Iron-Manganese Masses (F12)</div><div><div><div></div></div>Piedmont Floodplain Soils (F19)</div><div><div><div></div></div>Mesic Spodic (TA6)</div><div><div><div></div></div>Red Parent Material (F21)</div><div><div><div></div></div>Very Shallow Dark Surface (TF12)</div><div><div><div></div></div>Other (Explain in Remarks)</div></div></div></div>									
<div>Restrictive Layer (if observed):<div>Type:<div></div>Depth (inches):<div></div></div></div>							<div>Hydric Soil Present?    Yes <div></div> No <div>X</div></div>		
<div>Remarks:<div></div></div>									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/13/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200713\_WL19\_W1  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.087079 Long: -78.251662 Datum: NAD83  
Soil Map Unit Name: OvA NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL19</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200713\_WL19\_W1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200713\_WL19\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 3/2	98	10YR 5/6	2	C	M	Sandy Loam		
8-15	10YR 4/2	90	10YR 5/8	10	C	M	Loamy Sand		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/13/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200713\_WL19\_U1  
Landform (hillslope, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.087174 Long: -78.251662 Datum: NAD83  
Soil Map Unit Name: OvA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

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<u>Phleum pratense</u>	10		FACU																																																																																														
<u>Symphytotrichum lanceolatum</u>	7		FACW																																																																																														
<u>Juncus tenuis</u>	5		FAC																																																																																														
82 = Total Cover																																																																																																	
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																														
<u>Vitis riparia</u>	5	X	FAC																																																																																														
5 = Total Cover																																																																																																	
OBL species	<u>0</u>	x 1	<u>0</u>																																																																																														
FACW species	<u>27</u>	x 2	<u>54</u>																																																																																														
FAC species	<u>40</u>	x 3	<u>120</u>																																																																																														
FACU species	<u>55</u>	x 4	<u>220</u>																																																																																														
UPL species	<u>0</u>	x 5	<u>0</u>																																																																																														
Column Totals	<u>122</u>	(A)	<u>394</u> (B)																																																																																														
Prevalence Index = B/A =			<u>3.23</u>																																																																																														

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200713\_WL19\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-8	10YR 3/2	100					Sandy Loam	
8-18	10YR 3/3	95	10YR 4/6	5	C	M	Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/14/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200714\_WL20\_W1  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.087035 Long: -78.253518 Datum: NAD83  
Soil Map Unit Name: La NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL20</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200714\_WL20\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Viburnum dentatum</u></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Echinochloa crus-galli</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Impatiens pallida</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Lysimachia nummularia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Glyceria striata</u></td> <td style="text-align: center;">8</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Eupatorium perfoliatum</u></td> <td style="text-align: center;">7</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Scirpus atrovirens</u></td> <td style="text-align: center;">6</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Viburnum dentatum</u>	4		FAC	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Echinochloa crus-galli</u>	30	X	FAC	<u>Impatiens pallida</u>	20	X	FACW	<u>Ranunculus hispidus</u>	15	X	FAC	<u>Lysimachia nummularia</u>	10		FACW	<u>Glyceria striata</u>	8		OBL	<u>Eupatorium perfoliatum</u>	7		FACW	<u>Scirpus atrovirens</u>	6		OBL	<u>Symphotrichum lanceolatum</u>	5		FACW	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>14</u></td> <td>x 1</td> <td style="text-align: center;"><u>14</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>42</u></td> <td>x 2</td> <td style="text-align: center;"><u>84</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>49</u></td> <td>x 3</td> <td style="text-align: center;"><u>147</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>105</u> (A)</td> <td></td> <td style="text-align: center;"><u>245</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>2.33</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	<u>14</u>	x 1	<u>14</u>	FACW species	<u>42</u>	x 2	<u>84</u>	FAC species	<u>49</u>	x 3	<u>147</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>105</u> (A)		<u>245</u> (B)	Prevalence Index = B/A = <u>2.33</u>			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200714\_WL20\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-7	10YR 2/1	95	10YR 4/6	5	C	M	Silty Clay Loam		
7-15	10YR 4/1	90	10YR 4/6	10	C	M	Silty Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/14/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200714\_WL20\_W2  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%) 0 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.087122 Long: -78.253799 Datum: NAD83  
 Soil Map Unit Name: La NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL20</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200714\_WL20\_W2

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">85</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">85</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rosa multiflora</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Impatiens pallida</u></td> <td style="text-align: center;">35</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Persicaria virginiana</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Circaea canadensis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">90</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">15</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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(7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>120</u>	x 2	<u>240</u>	FAC species	<u>55</u>	x 3	<u>165</u>	FACU species	<u>25</u>	x 4	<u>100</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>200</u>	(A)	<u>505</u> (B)	Prevalence Index = B/A =			<u>2.52</u>		1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200714\_WL20\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-7	10YR 2/1	95	10YR 4/6	5	C	M	Silty Clay Loam		
7-15	10YR 4/1	90	10YR 4/6	10	C	M	Silty Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/14/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200714\_WL20\_W3  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 3 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.088437 Long: -78.255322 Datum: NAD83  
Soil Map Unit Name: La NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL20</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsely Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200714\_WL20\_W3

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200714\_WL20\_W3

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 3/1	95	10YR 4/6	5	C	M	Clay Loam		
4-10	10YR 4/1	85	10YR 5/8	15	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/14/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200714\_WL20\_U1  
Landform (hillslope, terrace, etc.): Side Slope Local relief (concave, convex, none): Convex Slope (%) 5 - 15  
Subregion (LRR or MLRA): LRR L Lat: 43.087079 Long: -78.253398 Datum: NAD83  
Soil Map Unit Name: La NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)		____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200714\_WL20\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Pinus strobus</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">35</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Juncus tenuis</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Asclepias syriaca</u></td> <td style="text-align: center;">8</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Phleum pratense</u></td> <td style="text-align: center;">8</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Parthenocissus inserta</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">86</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Prevalence Index = B/A =			<u>3.24</u>																																																																																																																		

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200714\_WL20\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 4/2	99	10YR 3/6	1	C	M	Sandy Clay Loam		
8-15	10YR 5/3	80	10YR 3/2	20	C	M	Loamy Sand		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/14/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200714\_WL20\_U2  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.088481 Long: -78.255411 Datum: NAD83  
Soil Map Unit Name: La NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsely Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200714\_WL20\_U2

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus amomum</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">50 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Dipsacus fullonum</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Prunella vulgaris</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Phleum pratense</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Poa compressa</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Erigeron annuus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Cirsium vulgare</u></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">94 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Cornus amomum</u>	25	X	FACW	<u>Fraxinus pennsylvanica</u>	25	X	FACW	50 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Daucus carota</u>	20	X	UPL	<u>Dipsacus fullonum</u>	20	X	FACU	<u>Prunella vulgaris</u>	15	X	FAC	<u>Phleum pratense</u>	10		FACU	<u>Poa compressa</u>	10		FACU	<u>Erigeron annuus</u>	5		FACU	<u>Solidago canadensis</u>	5		FACU	<u>Toxicodendron radicans</u>	5		FAC	<u>Cirsium vulgare</u>	4		FACU	94 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>5</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>50</u></td> <td>x 2</td> <td style="text-align: center;"><u>100</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>20</u></td> <td>x 3</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>54</u></td> <td>x 4</td> <td style="text-align: center;"><u>216</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>20</u></td> <td>x 5</td> <td style="text-align: center;"><u>100</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>144</u></td> <td>(A)</td> <td style="text-align: center;"><u>476</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.31</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>50</u>	x 2	<u>100</u>	FAC species	<u>20</u>	x 3	<u>60</u>	FACU species	<u>54</u>	x 4	<u>216</u>	UPL species	<u>20</u>	x 5	<u>100</u>	Column Totals	<u>144</u>	(A)	<u>476</u> (B)	Prevalence Index = B/A =			<u>3.31</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200714\_WL20\_U2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-5	10YR 3/2	100					Clay Loam	
5-14	10YR 4/3	95	10YR 4/4	5	C	M	Clay Loam	
14-20	10YR 5/3	90	10YR 4/4	10	C	M	Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/14/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200714\_WL21\_W2  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.089945 Long: -78.253185 Datum: NAD83  
 Soil Map Unit Name: OvB NWI Classification: PUB

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL21</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
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_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
<u>X</u> Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 36  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 0  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200714\_WL21\_W2

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Salix interior</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Oenanthë javanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Asclepias incarnata</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Scirpus atrovirens</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks: Open water, primary hydrology/vegetation indicators

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Genessee</u>	Sampling Date: <u>7/14/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: _____	Point: <u>1_20200714_WL21_U1</u>
Landform (hillslope, terrace, etc.): <u>Shoulder</u>	Local relief (concave, convex, none): <u>Convex</u>	Slope (%) <u>0 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.089950</u>	Long: <u>-78.253116</u>
Soil Map Unit Name: <u>OvB</u>	Datum: <u>NAD83</u>	
	NWI Classification: <u>UPL</u>	

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Present?    Yes            No    X

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200714\_WL21\_U1**

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 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown sedge; unidentifiable due to recent mowing.

## SOIL

Sampling Point: 1\_20200714\_WL21\_U1

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type	Loc		
0-10	10R 4/1	50	2.5YR 5/4	50	C	M	Clay	
10-16	10YR 4/4	100					Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/15/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200715\_WL22\_W1  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.087922 Long: -78.239581 Datum: NAD83  
Soil Map Unit Name: Wy NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL22</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Stream riparian wetland

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 5  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 0  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: 1\_20200715\_WL22\_W1

<b>Dominance Test Worksheet:</b>					
Number of Dominant Species That Are OBL, FACW, or FAC: _____ 5_____ (A)					
Total Number of Dominant Species Across All Strata: _____ 5_____ (B)					
Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100%_____ (A/B)					
<b>Prevalence Index Worksheet:</b>					
OBL species	_____ 25	x 1	_____ 25		
FACW species	_____ 40	x 2	_____ 80		
FAC species	_____ 65	x 3	_____ 195		
FACU species	_____ 5	x 4	_____ 20		
UPL species	_____ 0	x 5	_____ 0		
Column Totals	_____ 135	(A)	_____ 320	(B)	
Prevalence Index = B/A = _____  2.37					
<b>Hydrophytic Vegetation Indicators:</b>					
_____ 1- Rapid Test For Hydrophytic Vegetation					
X	2- Dominance Test is > 50%				
X	3- Prevalence Index is =< 3.0				
_____ 4- Morphological Adaptations					
_____ 5- Problematic Hydrophytic Vegetation					
<b>Definitions of Vegetation Strata:</b>					
Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.					
Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.					
Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.					
Woody Vines- All woody vines greater than 3.28ft in height.					
<b>Hydrophytic Vegetation Present?</b> Yes ____X____ No _____					

Remarks: (Include photo numbers here or on a separate sheet.)

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/15/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200715\_WL23\_W1  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%) 0 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.092225 Long: -78.243456 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL22</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: 1\_20200715\_WL23\_W1

<b>Tree Stratum</b> _____ <u>Salix nigra</u> <u>Fraxinus pennsylvanica</u>	(Plot Size: <u>30'</u> radius )	Absolute % Cover  <u>75</u> <u>15</u> <u>90</u> = Total Cover	Dominant Species?  X  X	Indicator Status  OBL FACW
<b>Shrub Stratum</b> _____ <u>Rhamnus cathartica</u> <u>Lonicera morrowii</u>	(Plot Size: <u>15'</u> radius )	Absolute % Cover  <u>10</u> <u>10</u> <u>20</u> = Total Cover	Dominant Species?  X X	Indicator Status  FAC FACU
<b>Herb Stratum</b> _____ <u>Impatiens pallida</u> <u>Boehmeria cylindrica</u> <u>Ranunculus hispidus</u>	(Plot Size: <u>5'</u> radius )	Absolute % Cover  <u>25</u> <u>10</u> <u>4</u> <u>39</u> = Total Cover	Dominant Species?  X X	Indicator Status  FACW OBL FAC
<b>Woody Vine Stratum</b> _____	(Plot Size: <u>30'</u> radius )	Absolute % Cover  _____ = Total Cover	Dominant Species?	Indicator Status

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

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**Prevalence Index Worksheet:**

OBL species	<u>85</u>	x 1	<u>85</u>
FACW species	<u>40</u>	x 2	<u>80</u>
FAC species	<u>14</u>	x 3	<u>42</u>
FACU species	<u>10</u>	x 4	<u>40</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>149</u>	(A)	<u>247</u> (B)

Prevalence Index = B/A = 1.66

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**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X     2- Dominance Test is > 50%
- X     3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

---

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

---

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200715\_WL23\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-7	10YR 3/1	100					Silty Clay Loam	
7-15	10YR 4/1	95	10YR 4/4	5	C	M	Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b> <div> Type: <u>Rock</u> </div> <div> Depth (inches): <u>15</u> </div>							Hydric Soil Present?    Yes <u>X</u> No <u>      </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/15/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200715\_WL22\_U1  
Landform (hillslope, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope (%) 5 - 10  
Subregion (LRR or MLRA): LRR L Lat: 43.092365 Long: -78.243538 Datum: NAD83  
Soil Map Unit Name: Wy NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of agricultural field, recently tilled

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200715\_WL22\_U1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">15 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Bromus inermis</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Erigeron annuus</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Poa compressa</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">20 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Lonicera morrowii</u>	10	X	FACU	<u>Cornus racemosa</u>	5	X	FAC	15 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Bromus inermis</u>	5	X	UPL	<u>Daucus carota</u>	5	X	UPL	<u>Erigeron annuus</u>	5	X	FACU	<u>Poa compressa</u>	5	X	FACU	20 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>6</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16.7%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td>x 3</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>20</u></td> <td>x 4</td> <td style="text-align: center;"><u>80</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>10</u></td> <td>x 5</td> <td style="text-align: center;"><u>50</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>35</u></td> <td>(A)</td> <td style="text-align: center;"><u>145</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4.14</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p>_____ 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200715\_WL22\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-10	10YR 3/2	100					Sandy Loam	
10-18	10YR 4/3	99	10YR 3/6	1	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/15/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200715\_WL23\_U1  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%) 0 - 2  
Subregion (LRR or MLRA): LRR L Lat: 43.087956 Long: -78.239522 Datum: NAD83  
Soil Map Unit Name: Wy NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200715\_WL23\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Picea abies</u></td> <td style="text-align: center;"><u>85</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>UPL</u></td> </tr> <tr> <td><u>Prunus serotina</u></td> <td style="text-align: center;"><u>15</u></td> <td></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>100</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>10</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>15</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: center;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>4</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>5</u></td> <td>x 2</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td>x 3</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>30</u></td> <td>x 4</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>85</u></td> <td>x 5</td> <td style="text-align: center;"><u>425</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>125</u></td> <td>(A)</td> <td style="text-align: center;"><u>570</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4.56</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200715\_WL23\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-18	10YR 4/3	100					Loamy Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>X</u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 10/8/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20201008\_WL23\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 2 - 4  
 Subregion (LRR or MLRA): LRR L Lat: 43.096690 Long: -78.234159 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL23</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: 1\_20201008\_WL23\_W1

<b>Tree Stratum</b> (Plot Size: <u>30'radius</u> )  <u>Populus deltoides</u> <u>Fraxinus pennsylvanica</u>	Absolute % Cover	Dominant Species?	Indicator Status	<p style="text-align: right;">40      X      FAC</p> <hr/> <p style="text-align: right;">20      X      FACW</p> <hr/> <p style="text-align: right;"><u>60</u> = Total Cover</p>
<b>Shrub Stratum</b> (Plot Size: <u>15'radius</u> )  <u>Salix nigra</u> <u>Cornus amomum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<p style="text-align: right;">15      X      OBL</p> <hr/> <p style="text-align: right;">15      X      FACW</p> <hr/> <p style="text-align: right;"><u>30</u> = Total Cover</p>
<b>Herb Stratum</b> (Plot Size: <u>5'radius</u> )  <u>Euthamia graminifolia</u> <u>Symphotrichum lanceolatum</u> <u>Agrostis gigantea</u>	Absolute % Cover	Dominant Species?	Indicator Status	<p style="text-align: right;">30      X      FAC</p> <hr/> <p style="text-align: right;">20      X      FACW</p> <hr/> <p style="text-align: right;">10                  FACW</p> <hr/> <p style="text-align: right;"><u>60</u> = Total Cover</p>
<b>Woody Vine Stratum</b> (Plot Size: <u>30'radius</u> )  <hr/>	Absolute % Cover	Dominant Species?	Indicator Status	<p style="text-align: right;">_____ = Total Cover</p>

### Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

### Prevalence Index Worksheet:

OBL species	<u>15</u>	x 1	<u>15</u>
FACW species	<u>65</u>	x 2	<u>130</u>
FAC species	<u>70</u>	x 3	<u>210</u>
FACU species	<u>0</u>	x 4	<u>0</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>150</u>	(A)	<u>355</u> (B)

Prevalence Index = B/A = 2.37

### Hydrophytic Vegetation Indicators:

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

### Definitions of Vegetation Strata:

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic Vegetation Present?

Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20201008\_WL23\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-7	10YR 3/2	98	10YR 4/4	2	C	M	Sandy Loam		
7-16	10YR 4/2	90	10YR 4/6	10	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 10/08/2020  
Applicant/Owner: Hecate State: NY Sampling Point: Upland-WL23  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.096799 Long: -78.23409 Datum: NAD83  
Soil Map Unit Name: Ma NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Upland-WL23**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Plantago lanceolata</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Medicago lupulina</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Bidens frondosa</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">90 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status	<u>Ambrosia artemisiifolia</u>	30	X	FACU	<u>Alliaria petiolata</u>	25	X	FACU	<u>Plantago lanceolata</u>	15		FACU	<u>Medicago lupulina</u>	10		FACU	<u>Bidens frondosa</u>	10		FACW		90 = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>80</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>320</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>90</u> (A)</td> <td></td> <td style="text-align: center;"><u>340</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.78</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)																																																																																													

## SOIL

Sampling Point: **Upland-WL23**

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color	%	Type	Loc	Texture		
0-12	10YR 3/3		100					Silt Loam		
12-18	10YR 6/3		100					Silt Loam		
18-24	10YR 7/2		90	7.5YR 5/8	10	C	PL	Silt Loam		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/15/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andy Smith Section, Township, Range: \_\_\_\_\_ 1\_20200715\_WL24\_W1  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.092619 Long: -78.23802 Datum: NAD83  
Soil Map Unit Name: OvA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL24</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200715\_WL24\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;"><u>20</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>45</u></td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rhamnus cathartica</u></td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>10</u></td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Bidens frondosa</u></td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;"><u>5</u></td> <td></td> <td style="text-align: center;"><u>UPL</u></td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td style="text-align: center;"><u>5</u></td> <td></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td><u>Boehmeria cylindrica</u></td> <td style="text-align: center;"><u>5</u></td> <td></td> <td style="text-align: center;"><u>OBL</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>45</u></td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	<u>25</u>	<u>X</u>	<u>FACW</u>	<u>Populus deltoides</u>	<u>20</u>	<u>X</u>	<u>FAC</u>		<u>45</u>	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Rhamnus cathartica</u>	<u>10</u>	<u>X</u>	<u>FAC</u>		<u>10</u>	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Bidens frondosa</u>	<u>15</u>	<u>X</u>	<u>FACW</u>	<u>Toxicodendron radicans</u>	<u>15</u>	<u>X</u>	<u>FAC</u>	<u>Daucus carota</u>	<u>5</u>		<u>UPL</u>	<u>Ranunculus hispidus</u>	<u>5</u>		<u>FAC</u>	<u>Boehmeria cylindrica</u>	<u>5</u>		<u>OBL</u>		<u>45</u>	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)                      Total Number of Dominant Species Across All Strata: <u>5</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>5</u></td> <td>x 1</td> <td style="text-align: center;"><u>5</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>40</u></td> <td>x 2</td> <td style="text-align: center;"><u>80</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>50</u></td> <td>x 3</td> <td style="text-align: center;"><u>150</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>5</u></td> <td>x 5</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>100</u></td> <td>(A)</td> <td style="text-align: center;"><u>260</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.6</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>      </u> 1- Rapid Test For Hydrophytic Vegetation  <u>X</u> 2- Dominance Test is &gt; 50%  <u>X</u> 3- Prevalence Index is =&lt; 3.0  <u>      </u> 4- Morphological Adaptations  <u>      </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>5</u>	x 1	<u>5</u>	FACW species	<u>40</u>	x 2	<u>80</u>	FAC species	<u>50</u>	x 3	<u>150</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>5</u>	x 5	<u>25</u>	Column Totals	<u>100</u>	(A)	<u>260</u> (B)	Prevalence Index = B/A =			<u>2.6</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200715\_WL24\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-9	10YR 3/1	90	10YR 4/4	10	C	M	Sandy Loam		
9-15	10YR 5/4	85	10YR 4/6	15	C	M	Sand		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/15/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200715\_WL24\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR R Lat: 43.092621 Long: -78.238158 Datum: NAD83  
Soil Map Unit Name: OvA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

Recently plowed field

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)		____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 1\_20200715\_WL24\_U1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
_____		_____ = Total Cover		

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
_____		_____ = Total Cover		

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
_____		_____ = Total Cover		

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
_____		_____ = Total Cover		

Remarks: (Include photo numbers here or on a separate sheet.)

No vegetation present due to recent plowing

## SOIL

Sampling Point: 1\_20200715\_WL24\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-3	10YR 3/1	100					Loam	
3-12	10YR 3/2	100					Loam	
12-18	10YR 5/4	90	10YR 4/6	10	C	M	Sandy Loam	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No   X  

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 10/8/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200925\_WL\_111\_w1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.105627 Long: -78.225259 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL25</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200925\_WL\_111\_w1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;"><u>35</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>35</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Viburnum lentago</u></td> <td style="text-align: center;"><u>45</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;"><u>20</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;"><u>15</u></td> <td></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td><u>Rhamnus cathartica</u></td> <td style="text-align: center;"><u>5</u></td> <td></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>85</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>15</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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(7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No <u>        </u></p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>50</u>	x 2	<u>100</u>	FAC species	<u>55</u>	x 3	<u>165</u>	FACU species	<u>30</u>	x 4	<u>120</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>135</u>	(A)	<u>385</u> (B)	Prevalence Index = B/A =			<u>2.85</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200925\_WL\_111\_w1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-7	10YR 3/1	100					Sandy Loam	
7-16	10YR 5/1	75	10YR 5/8	25	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Genessee</u>	Sampling Date: <u>9/22/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point:
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range:	<u>1_20200925_WL_111_U1</u>
Landform (hillslope, terrace, etc.): <u>Rise</u>	Local relief (concave, convex, none): <u>None</u>	Slope (%) <u>3 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.105655</u>	Long: <u>-78.225306</u>
Soil Map Unit Name: <u>CaA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?    Yes _____ No <u>X</u> Hydric Soil Present?                 Yes _____ No <u>X</u> Wetland Hydrology Present?        Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  Edge of field	

Wetland Hydrology Indicators:				Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required: check all that apply)					
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)			
				<input type="checkbox"/> FAC-Neutral Test (D5)	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches) <input type="text"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches) <input type="text"/>				
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches) <input type="text"/>				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

**VEGETATION - Use scientific names of plants**

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Indicator Status	<u>Quercus macrocarpa</u>	<u>15</u>	<u>X</u>	<u>FACU</u>		<u>15</u>	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Lonicera morrowii</u>	<u>40</u>	<u>X</u>	<u>FACU</u>		<u>40</u>	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Unknown species</u>	<u>30</u>	<u>X</u>	<u>UNK</u>	<u>Trifolium pratense</u>	<u>15</u>	<u>X</u>	<u>FACU</u>	<u>Prunus serotina</u>	<u>15</u>	<u>X</u>	<u>FACU</u>	<u>Daucus carota</u>	<u>10</u>		<u>UPL</u>	<u>Lotus corniculatus</u>	<u>10</u>		<u>FACU</u>	<u>Plantago major</u>	<u>5</u>		<u>FACU</u>	<u>Plantago lanceolata</u>	<u>5</u>		<u>FACU</u>	<u>Symphotrichum pilosum</u>	<u>5</u>		<u>FACU</u>		<u>95</u>	= Total Cover			Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass due to recent mowing

## SOIL

Sampling Point: 1\_20200925\_WL\_111\_U1

Depth (inches)	Matrix			Redox Features					
	Color		%	Color	%	Type	Loc	Texture	Remarks
0-14	10YR 3/2		100					Sandy Loam	
14-20	10YR 4/3		100					Sand	
<b>Hydric Soil Indicators:</b>									
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Polyvalue Below Surface (B15)									
<input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Thin Dark Surface (S9)									
<input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1)									
<input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2)									
<input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Matrix (F3)									
<input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Redox Dark Surface (F6)									
<input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Depleted Dark Surface (F7)									
<input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Redox Depressions (F8)									
<input type="checkbox"/> Sandy Gleyed Matrix (S4)									
<input type="checkbox"/> Sandy Redox (S5)									
<input type="checkbox"/> Stripped Matrix (S6)									
<input type="checkbox"/> Dark Surface (S7)									
<b>Indicators for Problematic Soils:</b>									
<input type="checkbox"/> 2 cm Muck (A10)									
<input type="checkbox"/> Coast Prarie Redox (A16)									
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)									
<input type="checkbox"/> Dark Surface (S7)									
<input type="checkbox"/> Polyvalue Below Surface (S8)									
<input type="checkbox"/> Thin Dark Surface (S9)									
<input type="checkbox"/> Iron-Manganese Masses (F12)									
<input type="checkbox"/> Piedmont Floodplain Soils (F19)									
<input type="checkbox"/> Mesic Spodic (TA6)									
<input type="checkbox"/> Red Parent Material (F21)									
<input type="checkbox"/> Very Shallow Dark Surface (TF12)									
<input type="checkbox"/> Other (Explain in Remarks)									
<b>Restrictive Layer (if observed):</b>									
Type: _____								Hydric Soil Present? Yes _____ No _____ X _____	
Depth (inches): _____									
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/16/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200716\_WL26\_W1  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.089285 Long: -78.246334 Datum: NAD83  
Soil Map Unit Name: OvB NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL26</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200716\_WL26\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td rowspan="2">= Total Cover</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td><u>5</u></td> <td><u>X</u></td> <td><u>FACW</u></td> <td rowspan="2">= Total Cover</td> </tr> <tr> <td>_____</td> <td><u>5</u></td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td><u>75</u></td> <td><u>X</u></td> <td><u>FACW</u></td> <td rowspan="5">= Total Cover</td> </tr> <tr> <td><u>Eupatorium perfoliatum</u></td> <td><u>8</u></td> <td>_____</td> <td><u>FACW</u></td> </tr> <tr> <td><u>Bidens frondosa</u></td> <td><u>4</u></td> <td>_____</td> <td><u>FACW</u></td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td><u>1</u></td> <td>_____</td> <td><u>FAC</u></td> </tr> <tr> <td>_____</td> <td><u>88</u></td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td rowspan="2">= Total Cover</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200716\_WL26\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	10YR 3/1	98	10YR 4/6	2	C	M	Silt Loam		
3-14	10YR 4/2	90	10YR 5/6	10	C	M	Silt Loam		
14-18	7.5YR 5/3	85	7.5YR 5/6	15	C	M	Sand		
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input checked="" type="checkbox"/> Depleted Matrix (F3)  <input checked="" type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/16/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200716\_WL26\_W2  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.088495 Long: -78.246886 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL26</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200716\_WL26\_W2

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus amomum</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Rosa multiflora</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">95 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Bidens frondosa</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Boehmeria cylindrica</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Symphytotrichum lanceolatum</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Lycopus americanus</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Geum canadense</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">58 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>7</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>35</u></td> <td>x 1</td> <td style="text-align: center;"><u>35</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>100</u></td> <td>x 2</td> <td style="text-align: center;"><u>200</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>3</u></td> <td>x 3</td> <td style="text-align: center;"><u>9</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>15</u></td> <td>x 4</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>153</u></td> <td>(A)</td> <td style="text-align: center;"><u>304</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.99</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><u>X</u> 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200716\_WL26\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-5	10YR 2/2	100					Sandy Loam	
5-12	10YR 4/2	80	10YR 4/6	20	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/16/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200716\_WL26\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.089193 Long: -78.246262 Datum: NAD83  
Soil Map Unit Name: OvB NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200716\_WL26\_U1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Picea abies</u>		<u>75</u>	<u>X</u>	<u>UPL</u>
		<u>75</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		<u>10</u>	<u>X</u>	<u>FACW</u>
		<u>10</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Solidago canadensis</u>		<u>5</u>	<u>X</u>	<u>FACU</u>
<u>Boehmeria cylindrica</u>		<u>5</u>	<u>X</u>	<u>OBL</u>
<u>Toxicodendron radicans</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
<u>Cirsium vulgare</u>		<u>5</u>	<u>X</u>	<u>FACU</u>
<u>Ranunculus hispidus</u>		<u>4</u>		<u>FAC</u>
<u>Impatiens pallida</u>		<u>3</u>		<u>FACW</u>
		<u>27</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
			= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant  
 Species Across All Strata: 6 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 50% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>5</u>	x 1	<u>5</u>
FACW species	<u>13</u>	x 2	<u>26</u>
FAC species	<u>9</u>	x 3	<u>27</u>
FACU species	<u>10</u>	x 4	<u>40</u>
UPL species	<u>75</u>	x 5	<u>375</u>
Column Totals	<u>112</u>	(A)	<u>473</u> (B)
Prevalence Index = B/A =			<u>4.22</u>

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- 2- Dominance Test is > 50%
- 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes        No X

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200716\_WL26\_U1

Depth (inches)	Matrix			Redox Features					Remarks
	Color		%	Color	%	Type	Loc	Texture	
0-3	10YR 3/2		100					Sandy Loam	
3-14	10YR 4/3		99	10YR 3/4	1	C	M	Sandy Loam	
14-20	7.5YR 5/3		95	7.5YR 4/6	5	C	M	Sand	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/16/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200716\_WL27\_W1  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.090822 Long: -78.246629 Datum: NAD83  
 Soil Map Unit Name: Wy NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL27</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Riparian Area to ST26

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u>X</u> Drainage Patterns (B10)
_____ Water-Stained Leaves (B9)	_____ Moss Trim Lines (B16)
_____ High Water Table (A2)	_____ Dry-Season Water Table (C2)
_____ Saturation (A3)	_____ Crayfish Burrows (C8)
_____ Water Marks (B1)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Sediment Deposits (B2)	_____ Stunted or Stressed Plants (D1)
_____ Drift Deposits (B3)	<u>X</u> Geomorphic Position (D2)
_____ Algal Mat or Crust (B4)	_____ Shallow Aquitard (D3)
_____ Iron Deposits (B5)	_____ Microtopographic Relief (D4)
_____ Inundation Visible on Aerial Imagery (B7)	<u>X</u> FAC-Neutral Test (D5)
_____ Sparsley Vegetated Concave Surface (B8)	

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 4  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** - Use scientific names of plants

Sampling Point: 1\_20200716\_WL27\_W1

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Fraxinus pennsylvanica</u>	<u>35</u>	<u>X</u>	<u>FACW</u>	
<u>Salix nigra</u>	<u>30</u>	<u>X</u>	<u>OBL</u>	
	<u>65</u>	= Total Cover		
<b>Shrub Stratum</b> (Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Cornus racemosa</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	
	<u>20</u>	= Total Cover		
<b>Herb Stratum</b> (Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Leersia oryzoides</u>	<u>30</u>	<u>X</u>	<u>OBL</u>	
<u>Eutrochium purpureum</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	
<u>Verbena hastata</u>	<u>10</u>		<u>FACW</u>	
<u>Cicuta maculata</u>	<u>10</u>		<u>OBL</u>	
	<u>70</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
_____	_____	= Total Cover		

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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**Prevalence Index Worksheet:**

OBL species	<u>70</u>	x 1	<u>70</u>
FACW species	<u>45</u>	x 2	<u>90</u>
FAC species	<u>40</u>	x 3	<u>120</u>
FACU species	<u>0</u>	x 4	<u>0</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>155</u>	(A)	<u>280</u> (B)
Prevalence Index = B/A =			<u>1.81</u>

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**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X     2- Dominance Test is > 50%
- X     3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

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**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

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Hydrophytic Vegetation Present?

Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200716\_WL27\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-3	10YR 3/2	100					Sandy Loam	
3-6	10YR 2.5/1	100					Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input checked="" type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b> <div> Type: <u>Rock</u> </div> <div> Depth (inches): <u>6</u> </div>							Hydric Soil Present?    Yes <u>X</u> No <u>      </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/15/2020  
 Applicant/Owner: Hecate State: NY Sampling  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200716\_WL27\_U1  
 Landform (hillslope, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope (%) 3 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.090755 Long: -78.246608 Datum: NAD83  
 Soil Map Unit Name: Wy NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200716\_WL27\_U1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Juglans nigra</u>		50	X	FACU
		50	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Lonicera morrowii</u>		25	X	FACU
<u>Rubus idaeus</u>		25	X	FACU
<u>Cornus racemosa</u>		15	X	FAC
		65	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Artemisia vulgaris</u>		25	X	UPL
<u>Solidago canadensis</u>		20	X	FACU
<u>Glechoma hederacea</u>		10		FACU
<u>Helminthotheca echioides</u>		5		UPL
<u>Hesperis matronalis</u>		5		FACU
<u>Oxalis stricta</u>		5		FACU
		70	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus quinquefolia</u>		20	X	FACU
		20	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant  
 Species Across All Strata: 7 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 14.3% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0  
 FACW species 0 x 2 0  
 FAC species 15 x 3 45  
 FACU species 160 x 4 640  
 UPL species 30 x 5 150  
 Column Totals 205 (A) 835 (B)  
 Prevalence Index = B/A = 4.07

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- 2- Dominance Test is > 50%
- 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes        No X

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200716\_WL27\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-9	10YR 3/2	100					Sandy Loam	
9-20	10YR 3/3	100					Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/16/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200716\_WL28\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 2 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.096660 Long: -78.227723 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL28</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20209716\_WL28\_W1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		<u>25</u>	<u>X</u>	<u>FACW</u>
		<u>25</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Cornus racemosa</u>		<u>15</u>	<u>X</u>	<u>FAC</u>
<u>Viburnum opulus</u>		<u>12</u>	<u>X</u>	<u>FACW</u>
<u>Ribes americanum</u>		<u>10</u>	<u>X</u>	<u>FACW</u>
<u>Lonicera tatarica</u>		<u>10</u>	<u>X</u>	<u>FACU</u>
		<u>47</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Onoclea sensibilis</u>		<u>25</u>	<u>X</u>	<u>FACW</u>
<u>Symphotrichum lanceolatum</u>		<u>25</u>	<u>X</u>	<u>FACW</u>
		<u>50</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		<u>15</u>	<u>X</u>	<u>FAC</u>
<u>Parthenocissus quinquefolia</u>		<u>10</u>	<u>X</u>	<u>FACU</u>
		<u>25</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 7 (A)  
 Total Number of Dominant  
 Species Across All Strata: 9 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 77.8% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0  
 FACW species 97 x 2 194  
 FAC species 30 x 3 90  
 FACU species 20 x 4 80  
 UPL species 0 x 5 0  
 Column Totals 147 (A) 364 (B)  
 Prevalence Index = B/A = 2.48

**Hydrophytic Vegetation Indicators:**

1- Rapid Test For Hydrophytic Vegetation  
X 2- Dominance Test is > 50%  
X 3- Prevalence Index is =< 3.0  
4- Morphological Adaptations  
5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20209716\_WL28\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-5	10YR 3/1	90	5YR 4/6	10	C	M	Silty Clay Loam		
5-12	10YR 4/2	85	5YR 4/6	15	C	M	Silty Clay Loam		
12-20	10YR 4/1	80	5YR 4/6	20	C	M	Clay Loam		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 7/15/2020  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20200720\_WL28\_W2  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 2 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.096482 Long: -78.227739 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL28-2</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u></u> Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u>X</u> No <u></u> Depth (inches) <u>1</u>	Wetland Hydrology Present? Yes <u>X</u> No <u></u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL28\_W2

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td><u>Agrostis capillaris</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Agrostis gigantea</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Persicaria maculosa</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Carex vulpinoidea</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Glyceria striata</u></td> <td style="text-align: center;">8</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Acalypha rhomboidea</u></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">96</td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>23</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>23</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>50</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>40</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>8</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>32</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>96</u> (A)</td> <td></td> <td style="text-align: center;"><u>225</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.34</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="border-bottom: 1px solid black; margin-bottom: 5px;">1- Rapid Test For Hydrophytic Vegetation</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">X 2- Dominance Test is &gt; 50%</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">X 3- Prevalence Index is =&lt; 3.0</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">4- Morphological Adaptations</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>23</u>	x 1	<u>23</u>	FACW species	<u>25</u>	x 2	<u>50</u>	FAC species	<u>40</u>	x 3	<u>120</u>	FACU species	<u>8</u>	x 4	<u>32</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>96</u> (A)		<u>225</u> (B)	Prevalence Index = B/A =			<u>2.34</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point:

1\_20200720\_WL28\_W2

Depth (inches)	Matrix		Redox Features					1_20200720_W128-W2
	Color	%	Color	%	Type	Loc	Texture	Remarks
0-8	10YR 4/1	90	10YR 5/8	10	C	M	Clay	

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200720\_WL28\_W3  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.097307 Long: -78.226059 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL28</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
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<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
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<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL28\_W3

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td>Unknown species</td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UNK</td> </tr> <tr> <td>Solidago canadensis</td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td>Cyperus strigosus</td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td>Verbena hastata</td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td>Agrostis stolonifera</td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td>Cirsium arvense</td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">90</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>5</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>45</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>90</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>100</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>70</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>190</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.71</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>    </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>X</u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>X</u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>    </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>    </u> 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass species unidentifiable due to recent mowing

## SOIL

Sampling Point: 1\_20200720\_WL28\_W3

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/2	90	10YR 5/8	10	C	M	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/16/2020  
 Applicant/Owner: Hecate State: NY Sampling  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200716\_WL28\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.096604 Long: -78.227693 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200716\_WL28\_U1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		<u>40</u>	<u>X</u>	<u>FACW</u>
<u>Prunus serotina</u>		<u>15</u>	<u>X</u>	<u>FACU</u>
		<u>55</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Lonicera tatarica</u>		<u>25</u>	<u>X</u>	<u>FACU</u>
		<u>25</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Alliaria petiolata</u>		<u>10</u>	<u>X</u>	<u>FACU</u>
<u>Toxicodendron radicans</u>		<u>8</u>	<u>X</u>	<u>FAC</u>
<u>Geum canadense</u>		<u>4</u>		<u>FAC</u>
		<u>22</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus quinquefolia</u>		<u>20</u>	<u>X</u>	<u>FACU</u>
		<u>20</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant  
 Species Across All Strata: 6 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 33.3% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0  
 FACW species 40 x 2 80  
 FAC species 12 x 3 36  
 FACU species 70 x 4 280  
 UPL species 0 x 5 0  
 Column Totals 122 (A) 396 (B)  
 Prevalence Index = B/A = 3.25

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- 2- Dominance Test is > 50%
- 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes        No X

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200716\_WL28\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-3	10YR 2/2	100					Clay Loam	
3-12	10YR 3/2	99	10YR 3/4	1	C	M	Clay Loam	
12-20	10YR 4/2	85	10YR 4/4	15	C	M	Clay Loam	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No   X  

Remarks:

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/24/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200924\_WL29  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 1 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.098268 Long: -78.228343 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL29</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200924\_WL29**

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">75</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">120 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Agrostis stolonifera</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Symphotrichum lateriflorum</u></td> <td style="text-align: center;">8</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Persicaria virginiana</u></td> <td style="text-align: center;">6</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Scirpus atrovirens</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td colspan="4" style="text-align: right;">32 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">15 = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Vitis riparia</u>	15	X	FAC	15 = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>5</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>3</u></td> <td>x 1</td> <td style="text-align: center;"><u>3</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>90</u></td> <td>x 2</td> <td style="text-align: center;"><u>180</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>54</u></td> <td>x 3</td> <td style="text-align: center;"><u>162</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>20</u></td> <td>x 4</td> <td style="text-align: center;"><u>80</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>167</u></td> <td>(A)</td> <td style="text-align: center;"><u>425</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>2.54</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><u>    </u> 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p><u>    </u> 4- Morphological Adaptations</p> <p><u>    </u> 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: right;">Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u></p>	OBL species	<u>3</u>	x 1	<u>3</u>	FACW species	<u>90</u>	x 2	<u>180</u>	FAC species	<u>54</u>	x 3	<u>162</u>	FACU species	<u>20</u>	x 4	<u>80</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>167</u>	(A)	<u>425</u> (B)	Prevalence Index = B/A = <u>2.54</u>			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200924\_WL29

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-3	10YR 3/1	98	10YR 3/6	2	C	PL	Sandy Loam	
3-8	10YR 3/1	95	10YR 4/6	5	C	M	Sandy Clay Loam	
8-16	10YR 6/2	80	10YR 5/6	20	C	M	Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/17/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200715\_WL30\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.094814 Long: -78.233172 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL29</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

In agricultural field; wet area not cultivated

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u>X</u> No _____	Depth (inches) <u>3</u>	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes <u>X</u> No _____	Depth (inches) <u>0</u>	
Saturation Present? Yes <u>X</u> No _____	Depth (inches) <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** - Use scientific names of plants

Sampling Point: 1\_20200715\_WL30\_W1

<b>Tree Stratum</b>						<b>Dominance Test Worksheet:</b>							
(Plot Size: 30'radius )						Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)							
						Total Number of Dominant Species Across All Strata: 3 (B)							
						Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)							
<b>Shrub Stratum</b>						<b>Prevalence Index Worksheet:</b>							
(Plot Size: 15'radius )						OBL species 2 x 1 2							
						FACW species 36 x 2 72							
						FAC species 45 x 3 135							
						FACU species 11 x 4 44							
						UPL species 5 x 5 25							
						Column Totals 99 (A) 278 (B)							
						Prevalence Index = B/A = 2.81							
<b>Herb Stratum</b>						<b>Hydrophytic Vegetation Indicators:</b>							
(Plot Size: 5'radius )						1- Rapid Test For Hydrophytic Vegetation							
Cyperus strigosus						X 2- Dominance Test is > 50%							
Persicaria maculosa						X 3- Prevalence Index is =< 3.0							
Echinochloa crus-galli						4- Morphological Adaptations							
Agrostis gigantea						5- Problematic Hydrophytic Vegetation							
Ambrosia artemisiifolia													
Abutilon theophrasti													
Daucus carota													
Asclepias incarnata													
<b>Woody Vine Stratum</b>						<b>Definitions of Vegetation Strata:</b>							
(Plot Size: 30'radius )						Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.							
						Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.							
						Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.							
						Woody Vines- All woody vines greater than 3.28ft in height.							
						Hydrophytic Vegetation Present? Yes X No							

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200715\_WL30\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-13	10YR 4/2	90	10YR 5/8	10	C	M	Clay Loam		
13-18	10YR 5/2	70	10YR 5/8	30	C	M	Sand		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/17/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200715\_WL29\_W3  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
Subregion (LRR or MLRA): LRR L Lat: 43.095764 Long: -78.231925 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL29</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200715\_WL29\_W3

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Populus deltoides</u>		60	X	FAC
<u>Salix nigra</u>		30	X	OBL
		90	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		30	X	FACW
<u>Lonicera morrowii</u>		15	X	FACU
		45	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Phragmites australis</u>		20	X	FACW
<u>Toxicodendron radicans</u>		15	X	FAC
		35	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		5	X	FAC
		5	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 6 (A)  
 Total Number of Dominant  
 Species Across All Strata: 7 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 85.7% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>30</u>	x 1	<u>30</u>
FACW species	<u>50</u>	x 2	<u>100</u>
FAC species	<u>80</u>	x 3	<u>240</u>
FACU species	<u>15</u>	x 4	<u>60</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>175</u>	(A)	<u>430</u> (B)
Prevalence Index = B/A =			<u>2.46</u>

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200715\_WL29\_W3

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-8	10YR 2/1	90	10YR 4/4	10	C	PL	Loam	
8-12	10YR 2/2	95	10YR 4/4	5	C	M	Loam	
12-16	10YR 5/2	80	10YR 5/8	20	C	M	Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/17/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200717\_WL29\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): None Slope (%) 0 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.095362 Long: -78.231783 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200717\_WL29\_U1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">85</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Plantago major</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Cyperus strigosus</u></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">104 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>1</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>4</u></td> <td>x 2</td> <td style="text-align: center;"><u>8</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>15</u></td> <td>x 4</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>85</u></td> <td>x 5</td> <td style="text-align: center;"><u>425</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>104</u> (A)</td> <td></td> <td style="text-align: center;"><u>493</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4.74</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p>_____ 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200717\_WL29\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-16	10YR 2/2	100					Sandy Clay Loam	
16-20	10YR 5/2	70	10YR 5/8	30	C	M	Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/24/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200724-WL-53-53W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.098335 Long: -78.192491 Datum: NAD83  
 Soil Map Unit Name: Wk NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL30</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 1  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200724-WL-53-53W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Alisma triviale</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Bidens frondosa</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">60 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">5 = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200724-WL-53-53W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	10YR 5/1	80	10YR 6/8	20	C	M	Sandy Loam		
<div><div><b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)</div><div><input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)</div><div><b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)</div></div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/24/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200724-WL-53-53U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.098366</u>	Long: <u>-78.192498</u>
Soil Map Unit Name: <u>Wk</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200724-WL-53-53U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200724-WL-53-53U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-20	10YR 3/3	100					Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07202020\_WL31\_W3  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope (%) 2 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.095153 Long: -78.226697 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL31</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_07202020\_WL31\_W3

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07202020\_WL31\_W3

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-9	7.5YR 4/2	90	10YR 5/6	10	C	M	Loamy Sand		
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input checked="" type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

**HYDROLOGY**

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Upland-WL31**

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Prevalence Index = B/A =			<u>4.14</u>																																																																																														

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: **Upland-WL31**

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-18	10YR 3/2	95	10YR 4/6	5	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 10/8/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200720\_WL32\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.093354 Long: -78.227280 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL32</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 8

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** - Use scientific names of plants

Sampling Point: 1\_20200720\_WL32\_W1

<b>Tree Stratum</b>		(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  Total Number of Dominant Species Across All Strata: 3 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
			= Total Cover			
<b>Shrub Stratum</b>		(Plot Size: 15'radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index Worksheet:</b>  OBL species 30 x 1 30 FACW species 40 x 2 80 FAC species 10 x 3 30 FACU species 0 x 4 0 UPL species 0 x 5 0 Column Totals 80 (A) 140 (B)  Prevalence Index = B/A = 1.75
			= Total Cover			
<b>Herb Stratum</b>		(Plot Size: 5'radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>  X 1- Rapid Test For Hydrophytic Vegetation X 2- Dominance Test is > 50% X 3- Prevalence Index is =< 3.0 4- Morphological Adaptations 5- Problematic Hydrophytic Vegetation
Leersia oryzoides			20	X	OBL	
Impatiens capensis			15	X	FACW	
Symphyotrichum lanceolatum			15	X	FACW	
Eutrochium purpureum			10		FAC	
Bidens frondosa			10		FACW	
Alisma subcordatum			10		OBL	
			80	= Total Cover		
<b>Woody Vine Stratum</b>		(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Definitions of Vegetation Strata:</b>  Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.  Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.  Woody Vines- All woody vines greater than 3.28ft in height.
			= Total Cover			
						Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL32\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	10YR 4/5	70	10YR 3/2	30	C	M	Sandy Loam		
3-8	7.5YR 2.5/1	98	7.5YR 5/6	2	C	M	Mucky Loam		
8-16	10YR 3/1	95	10YR 4/6	5	C	M	Sandy Loam		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/15/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200720\_WL32\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.093281 Long: -78.227351 Datum: NAD83  
Soil Map Unit Name: OvA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL32\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Prunus serotina</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Rosa multiflora</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">45</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phleum pratense</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Bromus inermis</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Dactylis glomerata</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">12</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Taraxacum officinale</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Trifolium pratense</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">6</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Ranunculus acris</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Geum canadense</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">93</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Prunus serotina</u>	40	X	FACU		40	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Lonicera morrowii</u>	25	X	FACU	<u>Cornus racemosa</u>	15	X	FAC	<u>Rosa multiflora</u>	5		FACU		45	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Phleum pratense</u>	15	X	FACU	<u>Bromus inermis</u>	15	X	UPL	<u>Dactylis glomerata</u>	15	X	FACU	<u>Toxicodendron radicans</u>	12	X	FAC	<u>Taraxacum officinale</u>	10		FACU	<u>Trifolium pratense</u>	10		FACU	<u>Daucus carota</u>	6		UPL	<u>Ranunculus acris</u>	5		FAC	<u>Geum canadense</u>	5		FAC		93	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						= Total Cover		<div> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>7</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>28.6%</u> (A/B)                 </div> <hr/> <div> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>37</u></td> <td>x 3</td> <td style="text-align: center;"><u>111</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>120</u></td> <td>x 4</td> <td style="text-align: center;"><u>480</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>21</u></td> <td>x 5</td> <td style="text-align: center;"><u>105</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>178</u></td> <td>(A)</td> <td style="text-align: center;"><u>696</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.91</u></td> </tr> </table> </div> <hr/> <div> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <hr/> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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UPL species	<u>21</u>	x 5	<u>105</u>																																																																																																																		
Column Totals	<u>178</u>	(A)	<u>696</u> (B)																																																																																																																		
Prevalence Index = B/A =			<u>3.91</u>																																																																																																																		

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL32\_U1

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color	%	Type	Loc	Texture		
0-2	10YR 4/2		100						Sandy Clay Loam	
2-5	10YR 4/2		60	2.5YR 4/6	40	C	M		Sandy Clay Loam	
5-16	7.5YR 3/2		60	7.5YR 4/6	40	C	M		Sandy Loam	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200720\_WL33\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.089710 Long: -78.216954 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL33</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Drainage ditch

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL33\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Apocynum cannabinum</u></td> <td><u>10</u></td> <td><u>X</u></td> <td><u>FAC</u></td> </tr> <tr> <td colspan="4" style="text-align: right;"><u>10</u> = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td><u>20</u></td> <td><u>X</u></td> <td><u>FACW</u></td> </tr> <tr> <td><u>Poa palustris</u></td> <td><u>20</u></td> <td><u>X</u></td> <td><u>FACW</u></td> </tr> <tr> <td><u>Agrostis gigantea</u></td> <td><u>15</u></td> <td></td> <td><u>FACW</u></td> </tr> <tr> <td><u>Phragmites australis</u></td> <td><u>15</u></td> <td></td> <td><u>FACW</u></td> </tr> <tr> <td><u>Asclepias incarnata</u></td> <td><u>10</u></td> <td></td> <td><u>OBL</u></td> </tr> <tr> <td colspan="4" style="text-align: right;"><u>80</u> = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td><u>10</u></td> <td>x 1</td> <td><u>10</u></td> </tr> <tr> <td>FACW species</td> <td><u>70</u></td> <td>x 2</td> <td><u>140</u></td> </tr> <tr> <td>FAC species</td> <td><u>10</u></td> <td>x 3</td> <td><u>30</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td><u>90</u></td> <td>(A)</td> <td><u>180</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>2</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	<u>10</u>	x 1	<u>10</u>	FACW species	<u>70</u>	x 2	<u>140</u>	FAC species	<u>10</u>	x 3	<u>30</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>90</u>	(A)	<u>180</u> (B)	Prevalence Index = B/A =			<u>2</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL33\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-9	10YR 4/2	90	10YR 4/6	10	C	M	Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input checked="" type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: Rock Depth (inches): 9							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200720\_WL33\_W2  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 3  
Subregion (LRR or MLRA): LRR L S Lat: 43.088280 Long: -78.219097 Datum: NAD83  
oil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL33</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: 1\_20200720\_WL33\_W2

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Fraxinus pennsylvanica</u>	50	X	FACW	
<u>Populus deltoides</u>	25	X	FAC	
<u>Acer saccharinum</u>	15		FACW	
	<u>90</u>	= Total Cover		
<b>Shrub Stratum</b> (Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Fraxinus pennsylvanica</u>	30	X	FACW	
	<u>30</u>	= Total Cover		
<b>Herb Stratum</b> (Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Carex tuckermanii</u>	5	X	OBL	
	<u>5</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
		= Total Cover		

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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**Prevalence Index Worksheet:**

OBL species	<u>5</u>	x 1	<u>5</u>
FACW species	<u>95</u>	x 2	<u>190</u>
FAC species	<u>25</u>	x 3	<u>75</u>
FACU species	<u>0</u>	x 4	<u>0</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>125</u>	(A)	<u>270</u> (B)
Prevalence Index = B/A =		<u>2.16</u>	

---

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

---

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

---

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL33\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-9	10YR 2/1	85	10YR 5/2	15	D	M	Sandy Clay Loam		
9-16	10YR 4/2	80	10YR 5/6	20	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200720\_WL33\_U1  
Landform (hillslope, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope (%) 2 - 30  
Subregion (LRR or MLRA): LRR L Lat: 43.089694 Long: -78.216920 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>_____</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)	<u>_____</u> FAC-Neutral Test (D5)
<u>_____</u> Water-Stained Leaves (B9)	
<u>_____</u> Aquatic Fauna (B13)	
<u>_____</u> Marl Deposits (B15)	
<u>_____</u> Hydrogen Sulfide Odor (C1)	
<u>_____</u> Oxidized Rhizospheres on Living Roots (C3)	
<u>_____</u> Presence of Reduced Iron (C4)	
<u>_____</u> Recent Iron Reduction in Tilled Soils (C6)	
<u>_____</u> Thin Muck Surface (C7)	
<u>_____</u> Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200720\_WL33\_U1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Unknown species</u></td> <td><u>25</u></td> <td><u>X</u></td> <td><u>UNK</u></td> </tr> <tr> <td><u>Phleum pratense</u></td> <td><u>20</u></td> <td><u>X</u></td> <td><u>FACU</u></td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td><u>20</u></td> <td><u>X</u></td> <td><u>FACW</u></td> </tr> <tr> <td><u>Daucus carota</u></td> <td><u>15</u></td> <td></td> <td><u>UPL</u></td> </tr> <tr> <td><u>Plantago lanceolata</u></td> <td><u>15</u></td> <td></td> <td><u>FACU</u></td> </tr> <tr> <td colspan="4" style="text-align: right;"><u>95</u> = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>3</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>20</u></td> <td>x 2</td> <td><u>40</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>35</u></td> <td>x 4</td> <td><u>140</u></td> </tr> <tr> <td>UPL species</td> <td><u>15</u></td> <td>x 5</td> <td><u>75</u></td> </tr> <tr> <td>Column Totals</td> <td><u>70</u></td> <td>(A)</td> <td><u>255</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>3.64</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>1-</u> Rapid Test For Hydrophytic Vegetation  <u>2-</u> Dominance Test is &gt; 50%  <u>3-</u> Prevalence Index is =&lt; 3.0  <u>4-</u> Morphological Adaptations  <u>5-</u> Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes _____ No <u>X</u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>20</u>	x 2	<u>40</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>35</u>	x 4	<u>140</u>	UPL species	<u>15</u>	x 5	<u>75</u>	Column Totals	<u>70</u>	(A)	<u>255</u> (B)	Prevalence Index = B/A =			<u>3.64</u>
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 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass species due to recent mowing

## SOIL

Sampling Point: 1\_20200720\_WL33\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-4	10YR 3/2	100					Sandy Loam	Gravelly
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: Dense Road Fill Depth (inches): 4							Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200720\_WL34\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 10  
 Subregion (LRR or MLRA): LRR L Lat: 43.094391 Long: -78.217803 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL34</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Associated with drainage ditch

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL34\_W1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL34\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-5	10YR 2/1	100					Sandy Loam	
5-12	10YR 3/1	100					Sandy Loam	
12-15	10YR 3/2	90	7.5YR 5/6	10	C	M	Sandy Clay Loam	
15-20	10YR 6/3	50	10YR 4/6	50	C	M	Sand	

  

Hydric Soil Indicators:	Indicators for Problematic Soils:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Dark Surface (S7)	<input checked="" type="checkbox"/> Other (Explain in Remarks)

  

<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____	Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____
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Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200720\_WL34\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.094332 Long: -78.217788 Datum: NAD83  
Soil Map Unit Name: HIA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL34\_U1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL34\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-16	10YR 3/2	100					Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07212020\_WL35\_W1  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.089777 Long: -78.225032 Datum: NAD83  
Soil Map Unit Name: HIA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL35</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Edge of active agricultural field (wheat)	

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)
Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____	
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____		
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_07212020\_WL35\_W1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td><u>Amaranthus retroflexus</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Echinochloa crus-galli</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Persicaria maculosa</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Portulaca oleracea</u></td> <td style="text-align: center;">8</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Eleocharis obtusa</u></td> <td style="text-align: center;">8</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Gnaphalium uliginosum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Setaria pumila</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Panicum virgatum</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Chenopodium album</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">101 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>4</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)                 </div> <hr/> <div> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>8</u></td> <td>x 1</td> <td style="text-align: center;"><u>8</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>48</u></td> <td>x 3</td> <td style="text-align: center;"><u>144</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>35</u></td> <td>x 4</td> <td style="text-align: center;"><u>140</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>10</u></td> <td>x 5</td> <td style="text-align: center;"><u>50</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>101</u></td> <td>(A)</td> <td style="text-align: center;"><u>342</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.39</u></td> </tr> </table> </div> <hr/> <div> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;">_____ 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;">_____ 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;">_____ 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;">_____ 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;">_____ 5- Problematic Hydrophytic Vegetation</div> </div> <hr/> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <hr/> <div style="text-align: right;">                     Hydrophytic Vegetation Present? Yes _____ No <u>X</u> </div>	OBL species	<u>8</u>	x 1	<u>8</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>48</u>	x 3	<u>144</u>	FACU species	<u>35</u>	x 4	<u>140</u>	UPL species	<u>10</u>	x 5	<u>50</u>	Column Totals	<u>101</u>	(A)	<u>342</u> (B)	Prevalence Index = B/A =			<u>3.39</u>
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Remarks: (Include photo numbers here or on a separate sheet.)																																																																																																																	

## SOIL

Sampling Point: 1\_07212020\_WL35\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	7.5YR 4/2	90	10YR 4/4	10	C	M	Clay Loam		
14-18	7.5YR 5/3	70	7.5YR 5/8	30	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_07212020\_WL35\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.089788 Long: -78.225128 Datum: NAD83  
 Soil Map Unit Name: HIA NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No _____	X _____	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No _____ X _____  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No _____	X _____	
Wetland Hydrology Present?	Yes _____	No _____	X _____	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_07212020\_WL35\_U1**

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07212020\_WL35\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-15	10YR 3/2	98	10YR 4/4	2	C	M	Sandy Clay Loam		
15-20	10YR 4/2	95	10YR 5/6	5	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07212020\_WL36\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.090225 Long: -78.224613 Datum: NAD83  
 Soil Map Unit Name: LoA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL36</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_07212020\_WL36\_W1**

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07212020\_WL36\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-4	10YR 2/1	100					Loam	
4-8	10YR 3/1	100					Silty Clay Loam	
8-16	10YR 5/2	80	10YR 5/8	20	C	M	Sandy Loam	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_07212020\_WL36\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.090153 Long: -78.224691 Datum: NAD83  
Soil Map Unit Name: HIA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_07212020\_WL36\_U1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Acer rubrum</u>		<u>30</u>	<u>X</u>	<u>FAC</u>
<u>Acer saccharinum</u>		<u>30</u>	<u>X</u>	<u>FACW</u>
		<u>60</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Rhamnus cathartica</u>		<u>80</u>	<u>X</u>	<u>FAC</u>
		<u>80</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Ambrosia artemisiifolia</u>		<u>4</u>	<u>X</u>	<u>FACU</u>
<u>Solidago canadensis</u>		<u>3</u>	<u>X</u>	<u>FACU</u>
<u>Cirsium arvense</u>		<u>3</u>	<u>X</u>	<u>FACU</u>
<u>Oxalis corniculata</u>		<u>3</u>	<u>X</u>	<u>FACU</u>
<u>Carex cristatella</u>		<u>1</u>		<u>FACW</u>
		<u>14</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus inserta</u>		<u>10</u>	<u>X</u>	<u>FACU</u>
<u>Vitis riparia</u>		<u>7</u>	<u>X</u>	<u>FAC</u>
		<u>17</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant Species Across All Strata: 9 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 44.4% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0  
 FACW species 31 x 2 62  
 FAC species 117 x 3 351  
 FACU species 23 x 4 92  
 UPL species 0 x 5 0  
 Column Totals 171 (A) 505 (B)  
 Prevalence Index = B/A = 2.95

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic Vegetation Present? Yes          No X

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07212020\_WL36\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-3	10YR 2/2	100					Sandy Loam	
3-12	10YR 3/2	100					Sandy Loam	
12-18	10YR 5/2	85	10YR 5/8	15	C	M	Sandy Loam	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07212020\_WL37\_W1  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Soil Lat: 43.090503 Long: -78.226211 Datum: NAD83  
Map Unit Name: HIB NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL37</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of agricultural field

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
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<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_07212020\_WL37\_W1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Echinochloa crus-galli</u></td> <td style="text-align: center;">90</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Eleocharis obtusa</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">116 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <hr/> <div> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>20</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>90</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>270</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>2</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>8</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>4</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>116</u> (A)</td> <td></td> <td style="text-align: center;"><u>318</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>2.74</u></td> </tr> </table> </div> <hr/> <div> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>      </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>X</u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>X</u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>      </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>      </u> 5- Problematic Hydrophytic Vegetation</div> </div> <hr/> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07212020\_WL37\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	7.5YR 4/2	90	10YR 4/4	10	C	M	Clay Loam		
14-18	7.5YR 5/3	70	7.5YR 5/8	30	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07212020\_WL38\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.090235 Long: -78.226793 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL38</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of agricultural field

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
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Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_07212020\_WL38\_W1

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Remarks: (Include photo numbers here or on a separate sheet.)

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_07212020\_WL37/38\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): None Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.090427 Long: -78.226432 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Moss Trim Lines (B16)
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Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_07212020\_WL37/38\_U1**

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07212020\_WL37/38\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/2	99	10YR 3/4	1	C	M	Sandy Clay Loam		
12-18	7.5YR 4/2	85	10YR 5/6	15	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07212020\_WL39\_W1  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.090066 Long: -78.231832 Datum: NAD83  
Soil Map Unit Name: RSA NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL39</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 8  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_07212020\_WL39\_W1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
_____		_____		
		_____ = Total Cover		

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Cephalanthus occidentalis</u>		<u>50</u>	<u>X</u>	<u>OBL</u>
<u>Salix nigra</u>		<u>25</u>	<u>X</u>	<u>OBL</u>
<u>Fraxinus pennsylvanica</u>		<u>15</u>		<u>FACW</u>
<u>Cornus amomum</u>		<u>10</u>		<u>FACW</u>
		<u>100</u> = Total Cover		

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Typha angustifolia</u>		<u>40</u>	<u>X</u>	<u>OBL</u>
<u>Carex lupulina</u>		<u>10</u>		<u>OBL</u>
<u>Alisma subcordatum</u>		<u>10</u>		<u>OBL</u>
		<u>60</u> = Total Cover		

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
		<u>5</u> = Total Cover		

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant  
 Species Across All Strata: 4 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>135</u>	x 1	<u>135</u>
FACW species	<u>25</u>	x 2	<u>50</u>
FAC species	<u>5</u>	x 3	<u>15</u>
FACU species	<u>0</u>	x 4	<u>0</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>165</u>	(A)	<u>200</u> (B)
Prevalence Index = B/A =			<u>1.21</u>

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test For Hydrophytic Vegetation  
X 2- Dominance Test is > 50%  
X 3- Prevalence Index is =< 3.0  
4 - Morphological Adaptations  
5 - Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07212020\_WL39\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-2	10YR 2/1	100					Silt Loam	
2-8	10YR 3/1	90	10YR 3/6	10	C	M	Silt Loam	
8-14	10YR 4/2	85	10YR 5/6	15	C	M	Clay	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07212020\_WL39\_W2  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Soil Lat: 43.090062 Long: -78.231918 Datum: NAD83  
Map Unit Name: RsA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL39</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of agricultural field

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_07212020\_WL39\_W2**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td><u>Eleocharis obtusa</u></td> <td style="text-align: center;">75</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Echinochloa crus-galli</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Xanthium strumarium</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">99</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status	<u>Eleocharis obtusa</u>	75	X	OBL	<u>Echinochloa crus-galli</u>	20	X	FAC	<u>Abutilon theophrasti</u>	2		FACU	<u>Xanthium strumarium</u>	2		FAC		99	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>75</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>22</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>66</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>2</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>8</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>99</u> (A)</td> <td></td> <td style="text-align: center;"><u>149</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.51</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>      </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>X</u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>X</u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>      </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>      </u> 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07212020\_WL39\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-12	10YR 4/2	75	10YR 4/4	25	C	M	Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07212020\_WL39\_W3  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.090034 Long: -78.231475 Datum: NAD83  
 Soil Map Unit Name: RSA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL39</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 5  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** - Use scientific names of plants

Sampling Point: 1\_07212020\_WL39\_W3

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Fraxinus pennsylvanica</u>	<u>50</u>	<u>X</u>	<u>FACW</u>	
<u>Salix nigra</u>	<u>15</u>	<u>X</u>	<u>OBL</u>	
	<u>65</u>	= Total Cover		
<b>Shrub Stratum</b> (Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Cephalanthus occidentalis</u>	<u>15</u>	<u>X</u>	<u>OBL</u>	
<u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>X</u>	<u>FACW</u>	
	<u>25</u>	= Total Cover		
<b>Herb Stratum</b> (Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Bidens frondosa</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
<u>Solanum dulcamara</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	
<u>Panicum virgatum</u>	<u>15</u>	<u>X</u>	<u>FAC</u>	
<u>Boehmeria cylindrica</u>	<u>10</u>		<u>OBL</u>	
<u>Alisma subcordatum</u>	<u>5</u>		<u>OBL</u>	
	<u>70</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>  </u>	<u>            </u>	= Total Cover		

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC:       7       (A)

Total Number of Dominant Species Across All Strata:       7       (B)

Percent of Dominant Species That Are OBL, FACW, or FAC:    100%    (A/B)

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**Prevalence Index Worksheet:**

OBL species	<u>      45      </u>	x 1	<u>      45      </u>
FACW species	<u>      80      </u>	x 2	<u>     160      </u>
FAC species	<u>      35      </u>	x 3	<u>     105      </u>
FACU species	<u>      0      </u>	x 4	<u>      0      </u>
UPL species	<u>      0      </u>	x 5	<u>      0      </u>
Column Totals	<u>     160      </u>	(A)	<u>     310      </u> (B)
Prevalence Index = B/A =			<u>     1.94      </u>

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**Hydrophytic Vegetation Indicators:**

<u>          </u>	1- Rapid Test For Hydrophytic Vegetation
<u>  X  </u>	2- Dominance Test is > 50%
<u>  X  </u>	3- Prevalence Index is =< 3.0
<u>          </u>	4- Morphological Adaptations
<u>          </u>	5- Problematic Hydrophytic Vegetation

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**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

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Hydrophytic Vegetation Present? Yes   X   No

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07212020\_WL39\_W3

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	2.5Y 3/1	80	7.5YR 3/4	20	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Genessee</u>	Sampling Date: <u>7/21/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: _____	Point: <u>1_07212020_WL39_U1</u>
Landform (hillslope, terrace, etc.): <u>Rise</u>	Local relief (concave, convex, none): <u>None</u>	Slope (%) <u>0 - 1</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.090098</u>	Long: <u>-78.232046</u>
Soil Map Unit Name: <u>RsA</u>	Datum: <u>NAD83</u>	
	NW1 Classification: <u>UPL</u>	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?    Yes _____ No <u>X</u> Hydric Soil Present?                 Yes _____ No <u>X</u> Wetland Hydrology Present?        Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

Wetland Hydrology Indicators:				Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required: check all that apply)				Surface Soil Cracks (B6)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)			
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)			
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	Depth (inches) <input type="text"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X			
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	Depth (inches) <input type="text"/>				
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	Depth (inches) <input type="text"/>				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_07212020\_WL39\_U1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">80</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Echinochloa crus-galli</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">85 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status	<u>Daucus carota</u>	80	X	UPL	<u>Echinochloa crus-galli</u>	5		FAC		85 = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>80</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>400</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>85</u> (A)</td> <td></td> <td style="text-align: center;"><u>415</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4.88</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07212020\_WL39\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	10YR 3/2	100						Sandy Clay Loam	
14-20	7.5YR 4/2	90	7.5YR 4/6	10	C	M		Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200720\_WL40\_W1  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope (%) 0 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.093694 Long: -78.225875 Datum: NAD83  
Soil Map Unit Name: HIB NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL40</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** - Use scientific names of plants

Sampling Point: 1\_20200720\_WL40\_W1

<b>Tree Stratum</b> (Plot Size: 30'radius )		Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)  Total Number of Dominant Species Across All Strata: 5 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
<u>Fraxinus pennsylvanica</u>		60	X	FACW	
<u>Salix nigra</u>		15	X	OBL	
		75	= Total Cover		
<b>Shrub Stratum</b> (Plot Size: 15'radius )		Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index Worksheet:</b>  OBL species 40 x 1 40 FACW species 103 x 2 206 FAC species 10 x 3 30 FACU species 0 x 4 0 UPL species 0 x 5 0 Column Totals 153 (A) 276 (B)  Prevalence Index = B/A = 1.8
<u>Rhamnus cathartica</u>		10	X	FAC	
		10	= Total Cover		
<b>Herb Stratum</b> (Plot Size: 5'radius )		Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>  1- Rapid Test For Hydrophytic Vegetation X 2- Dominance Test is > 50% X 3- Prevalence Index is =< 3.0 4- Morphological Adaptations 5- Problematic Hydrophytic Vegetation
<u>Phragmites australis</u>		35	X	FACW	
<u>Carex stipata</u>		15	X	OBL	
<u>Boehmeria cylindrica</u>		10		OBL	
<u>Symphytotrichum lanceolatum</u>		8		FACW	<b>Definitions of Vegetation Strata:</b>  Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.  Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.  Woody Vines- All woody vines greater than 3.28ft in height.
		68	= Total Cover		
<b>Woody Vine Stratum</b> (Plot Size: 30'radius )		Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes X No
		= Total Cover			

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL40\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 2/1	100						Silt Loam	
12-18	2.5Y 5/1	95	2.5Y 7/8	5	C	M		Loamy Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200720\_WL40\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 8  
 Subregion (LRR or MLRA): LRR L Lat: 43.093680 Long: -78.226019 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)	_____ FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL40\_U1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		<u>40</u>	<u>X</u>	<u>FACW</u>
		<u>40</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Lonicera morrowii</u>		<u>50</u>	<u>X</u>	<u>FACU</u>
<u>Rhamnus cathartica</u>		<u>50</u>	<u>X</u>	<u>FAC</u>
		<u>100</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Circaea canadensis</u>		<u>5</u>	<u>X</u>	<u>FACU</u>
		<u>5</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus quinquefolia</u>		<u>10</u>	<u>X</u>	<u>FACU</u>
<u>Vitis riparia</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
		<u>15</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant  
 Species Across All Strata: 6 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 50% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>0</u>	x 1	<u>0</u>
FACW species	<u>40</u>	x 2	<u>80</u>
FAC species	<u>55</u>	x 3	<u>165</u>
FACU species	<u>65</u>	x 4	<u>260</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>160</u>	(A)	<u>505</u> (B)
Prevalence Index = B/A =			<u>3.16</u>

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- 2- Dominance Test is > 50%
- 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes        No X

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL40\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-10	10YR 3/2	100					Sandy Loam	
10-14	10YR 4/3	100					Sandy Loam	
14-20	10YR 5/4	100					Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200720\_WL41\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.094835 Long: -78.222539 Datum: NAD83  
 Soil Map Unit Name: LoA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL41</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>  X  </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)	<u>  X  </u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** - Use scientific names of plants

Sampling Point: 1\_20200720\_WL41\_W1

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Fraxinus pennsylvanica</u>	40	X	FACW	
<u>Crataegus crus-galli</u>	15	X	FAC	
	<u>55</u>	= Total Cover		
<b>Shrub Stratum</b> (Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Lonicera morrowii</u>	15	X	FACU	
<u>Fraxinus pennsylvanica</u>	15	X	FACW	
	<u>30</u>	= Total Cover		
<b>Herb Stratum</b> (Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Cicuta maculata</u>	20	X	OBL	
<u>Symplocarpus foetidus</u>	20	X	OBL	
<u>Impatiens pallida</u>	10		FACW	
<u>Bidens frondosa</u>	5		FACW	
<u>Geranium robertianum</u>	1		FACU	
	<u>56</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>  </u>	<u>            </u>	= Total Cover		

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

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**Prevalence Index Worksheet:**

OBL species	<u>40</u>	x 1	<u>40</u>
FACW species	<u>70</u>	x 2	<u>140</u>
FAC species	<u>15</u>	x 3	<u>45</u>
FACU species	<u>16</u>	x 4	<u>64</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>141</u>	(A)	<u>289</u> (B)
Prevalence Index = B/A =		<u>2.05</u>	

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**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

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**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

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Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL41\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-10	10YR 3/1	90	10YR 4/4	10	C	M	Silty Clay Loam	
10-16	10YR 4/1	90	10YR 4/6	10	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200720\_WL42\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 10  
 Subregion (LRR or MLRA): LRR L Lat: 43.097417 Long: -78.219370 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL41</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Associated with drainage ditch

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL42\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">90</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">90</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">5</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">3</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Populus deltoides</u>	90	X	FAC		90	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	10	X	FACW		10	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Symphotrichum lanceolatum</u>	5	X	FACW		5	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Parthenocissus quinquefolia</u>	3		FACU		3	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>3</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>90</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>270</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>3</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>12</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>108</u> (A)</td> <td></td> <td style="text-align: center;"><u>312</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>2.89</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>      </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>X</u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>X</u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>      </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>      </u> 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>15</u>	x 2	<u>30</u>	FAC species	<u>90</u>	x 3	<u>270</u>	FACU species	<u>3</u>	x 4	<u>12</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>108</u> (A)		<u>312</u> (B)	Prevalence Index = B/A = <u>2.89</u>			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL42\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 2/1	95	2.5YR 4/8	5	C	PL	Sandy Loam		
8-18	10YR 3/2	100					Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200720\_WL41\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.094754 Long: -78.222372 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Microtopographic Relief (D4)
____ Sparsely Vegetated Concave Surface (B8)		____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL41\_U1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
_____		_____		
		_____ = Total Cover		

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Rhamnus cathartica</u>		<u>25</u>	<u>X</u>	<u>FAC</u>
<u>Lonicera morrowii</u>		<u>20</u>	<u>X</u>	<u>FACU</u>
<u>Rosa multiflora</u>		<u>6</u>		<u>FACU</u>
		<u>51</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Persicaria virginiana</u>		<u>15</u>	<u>X</u>	<u>FAC</u>
<u>Agrostis stolonifera</u>		<u>10</u>	<u>X</u>	<u>FACW</u>
<u>Impatiens pallida</u>		<u>5</u>		<u>FACW</u>
<u>Geum canadense</u>		<u>5</u>		<u>FAC</u>
<u>Symphotrichum lateriflorum</u>		<u>5</u>		<u>FAC</u>
<u>Toxicodendron radicans</u>		<u>5</u>		<u>FAC</u>
<u>Circaea canadensis</u>		<u>4</u>		<u>FACU</u>
		<u>49</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus quinquefolia</u>		<u>10</u>	<u>X</u>	<u>FACU</u>
		<u>10</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant  
Species Across All Strata: 5 (B)

Percent of Dominant Species  
That Are OBL, FACW, or FAC: 60% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>0</u>	x 1	<u>0</u>
FACW species	<u>15</u>	x 2	<u>30</u>
FAC species	<u>55</u>	x 3	<u>165</u>
FACU species	<u>40</u>	x 4	<u>160</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>110</u>	(A)	<u>355</u> (B)
Prevalence Index = B/A =			<u>3.23</u>

**Hydrophytic Vegetation Indicators:**

\_\_\_\_\_ 1- Rapid Test For Hydrophytic Vegetation

X 2- Dominance Test is > 50%

\_\_\_\_\_ 3- Prevalence Index is =< 3.0

\_\_\_\_\_ 4- Morphological Adaptations

\_\_\_\_\_ 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
Vegetation  
Present? Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL41\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/2	98	10YR 3/4	2	C	M	Sandy Clay Loam		
12-20	10YR 4/3	90	5Y 7/6	10	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 10/1/2020  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20201001\_WL113\_W1  
 Landform (hillslope, terrace, etc.): Footslope Local relief (concave, convex, none): Concave Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.108947 Long: -78.171408 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL42</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u></u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	Wetland Hydrology Present? Yes <u>X</u> No <u></u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: 1\_20201001\_WL113\_W1

<b>Tree Stratum</b>		(Plot Size: <u>30'</u> radius )		Absolute % Cover	Dominant Species?	Indicator Status
<u>Quercus bicolor</u>				25	X	FACW
<u>Acer saccharinum</u>				20	X	FACW
				<u>45</u>	= Total Cover	
<b>Shrub Stratum</b>		(Plot Size: <u>15'</u> radius )		Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>				30	X	FACW
				<u>30</u>	= Total Cover	
<b>Herb Stratum</b>		(Plot Size: <u>5'</u> radius )		Absolute % Cover	Dominant Species?	Indicator Status
<u>Agrostis stolonifera</u>				50	X	FACW
<u>Impatiens capensis</u>				30	X	FACW
<u>Lysimachia nummularia</u>				25		FACW
<u>Symphotrichum lanceolatum</u>				20		FACW
<u>Urtica dioica</u>				15		FAC
<u>Persicaria virginiana</u>				5		FAC
				<u>145</u>	= Total Cover	
<b>Woody Vine Stratum</b>		(Plot Size: <u>30'</u> radius )		Absolute % Cover	Dominant Species?	Indicator Status
<u>  </u>						
					= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC:      5      (A)

Total Number of Dominant Species Across All Strata:      5      (B)

Percent of Dominant Species That Are OBL, FACW, or FAC:      100%      (A/B)

---

**Prevalence Index Worksheet:**

OBL species	<u>0</u>	x 1	<u>0</u>
FACW species	<u>200</u>	x 2	<u>400</u>
FAC species	<u>20</u>	x 3	<u>60</u>
FACU species	<u>0</u>	x 4	<u>0</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>220</u>	(A)	<u>460</u> (B)
Prevalence Index = B/A =			<u>2.09</u>

---

**Hydrophytic Vegetation Indicators:**

- X 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

---

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

---

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20201001\_WL113\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 3/2	98	10YR 3/3	2	C	M	Sandy Clay Loam		
8-16	10YR 5/2	70	10YR 5/8	30	C	M	Clay Loam		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200720\_WL42\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Concave Slope (%) 1 - 10  
Subregion (LRR or MLRA): LRR L Lat: 43.097375 Long: -78.219360 Datum: NAD83  
Soil Map Unit Name: HIB NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL42\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Zea mays</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Lolium perenne</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Trifolium pratense</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Plantago major</u></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">62 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">3</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">13 = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL42\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	10YR 3/2	100						Sandy Loam	
14-20	10YR 3/2	95	10YR 5/6	5	C	M		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/22/2020  
Applicant/Owner: Hecate State: NY Sampling Point: Upland-WL41  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.097375 Long: -78.219358 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Upland-WL41**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Trifolium pratense</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Symphytotrichum lanceolatum</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Trifolium repens</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Erigeron strigosus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">85 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>50</u></td> <td>x 2</td> <td style="text-align: center;"><u>100</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>30</u></td> <td>x 4</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>5</u></td> <td>x 5</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>85</u></td> <td>(A)</td> <td style="text-align: center;"><u>245</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.88</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="border-bottom: 1px solid black; margin-bottom: 5px;">1- Rapid Test For Hydrophytic Vegetation</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">2- Dominance Test is &gt; 50%</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">X 3- Prevalence Index is =&lt; 3.0</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">4- Morphological Adaptations</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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 Remarks: (Include photo numbers here or on a separate sheet.)  
 disturbed, farm land

## SOIL

Sampling Point: **Upland-WL41**

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-20	10YR 4/6	100					Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 10/1/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: Upland-WL42  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 5 - 15  
 Subregion (LRR or MLRA): LRR L Lat: 43.108852 Long: -78.171311 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Marl Deposits (B15)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
	<input type="checkbox"/> Thin Muck Surface (C7)
	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Upland-WL42**

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		<u>15</u>	<u>X</u>	<u>FACW</u>
<u>Quercus macrocarpa</u>		<u>15</u>	<u>X</u>	<u>FACU</u>
		<u>30</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Cornus racemosa</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
<u>Lonicera morrowii</u>		<u>5</u>	<u>X</u>	<u>FACU</u>
<u>Rubus idaeus</u>		<u>5</u>	<u>X</u>	<u>FACU</u>
		<u>15</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Lysimachia nummularia</u>		<u>50</u>	<u>X</u>	<u>FACW</u>
<u>Symphytotrichum lateriflorum</u>		<u>35</u>	<u>X</u>	<u>FAC</u>
<u>Impatiens capensis</u>		<u>25</u>	<u>X</u>	<u>FACW</u>
<u>Dryopteris expansa</u>		<u>5</u>		<u>FAC</u>
<u>Persicaria virginiana</u>		<u>5</u>		<u>FAC</u>
		<u>120</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		<u>10</u>	<u>X</u>	<u>FAC</u>
<u>Toxicodendron radicans</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
		<u>15</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 7 (A)  
 Total Number of Dominant  
 Species Across All Strata: 10 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 70% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0  
 FACW species 90 x 2 180  
 FAC species 65 x 3 195  
 FACU species 25 x 4 100  
 UPL species 0 x 5 0  
 Column Totals 180 (A) 475 (B)  
 Prevalence Index = B/A = 2.64

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation  
X 2- Dominance Test is > 50%  
X 3- Prevalence Index is =< 3.0  
 4- Morphological Adaptations  
 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: **Upland-WL42**

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-15	10YR 3/2	100						Silt Loam	
15-20	7.5YR 5/3	85	7.5YR 4/4	15	C	M		Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200720\_WL43\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 10  
 Subregion (LRR or MLRA): LRR L Lat: 43.090674 Long: -78.217708 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL43</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Associated with stream

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL43\_W1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL43\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	7.5YR 3/1	95	10YR 4/6	5	C	M	Sandy Clay Loam		
8-16	10YR 4/2	100					Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200720\_WL43\_W2  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.090849 Long: -78.217833 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL43</u>
Remarks: (Explain alternative procedures here or in a separate report.) <u>Edge of agricultural field; on margin of stream bank</u>	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> Microtopographic Relief (D4)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

  

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

  
  

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL43\_W2

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<u>Bidens frondosa</u>	15	X	FACW																																																																																																		
<u>Carex vulpinoidea</u>	15	X	OBL																																																																																																		
<u>Acalypha rhomboidea</u>	15	X	FACU																																																																																																		
<u>Cicuta maculata</u>	10		OBL																																																																																																		
<u>Symphotrichum lateriflorum</u>	5		FAC																																																																																																		
<u>Daucus carota</u>	5		UPL																																																																																																		
85 = Total Cover																																																																																																					
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																		
<u>Vitis riparia</u>	10	X	FAC																																																																																																		
10 = Total Cover																																																																																																					
OBL species	<u>25</u>	x 1	<u>25</u>																																																																																																		
FACW species	<u>35</u>	x 2	<u>70</u>																																																																																																		
FAC species	<u>15</u>	x 3	<u>45</u>																																																																																																		
FACU species	<u>15</u>	x 4	<u>60</u>																																																																																																		
UPL species	<u>5</u>	x 5	<u>25</u>																																																																																																		
Column Totals	<u>95</u> (A)		<u>225</u> (B)																																																																																																		
Prevalence Index = B/A =			<u>2.37</u>																																																																																																		

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL43\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-12	10YR 2/1	100					Sandy Clay Loam	
12-18	10YR 4/1	85	10YR 4/6	15	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200720\_WL43\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 2 - 4  
Subregion (LRR or MLRA): LRR L Lat: 43.090714 Long: 43.090714 Datum: NAD83  
Soil Map Unit Name: HIB NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>  X  </u>
Water Table Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200720\_WL43\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer negundo</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rubus idaeus</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Rhus aromatica</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Zea mays</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Asclepias syriaca</u></td> <td style="text-align: center;">8</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Boehmeria cylindrica</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">68</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Acer negundo</u>	10	X	FAC		10	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Rubus idaeus</u>	15	X	FACU	<u>Rhus aromatica</u>	15	X	UPL	<u>Lonicera morrowii</u>	10	X	FACU		40	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Solidago canadensis</u>	25	X	FACU	<u>Zea mays</u>	20	X	UPL	<u>Alliaria petiolata</u>	10		FACU	<u>Asclepias syriaca</u>	8		UPL	<u>Boehmeria cylindrica</u>	5		OBL		68	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Vitis riparia</u>	40	X	FAC		40	= Total Cover		<div> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>7</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>28.6%</u> (A/B)                 </div> <hr/> <div> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>5</u></td> <td>x 1</td> <td style="text-align: center;"><u>5</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>50</u></td> <td>x 3</td> <td style="text-align: center;"><u>150</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>60</u></td> <td>x 4</td> <td style="text-align: center;"><u>240</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>43</u></td> <td>x 5</td> <td style="text-align: center;"><u>215</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>158</u></td> <td>(A)</td> <td style="text-align: center;"><u>610</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.86</u></td> </tr> </table> </div> <hr/> <div> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>      </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>      </u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>      </u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>      </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>      </u> 5- Problematic Hydrophytic Vegetation</div> </div> <hr/> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <hr/> <div style="text-align: right;">                     Hydrophytic Vegetation Present? Yes <u>      </u> No <u>X</u> </div>	OBL species	<u>5</u>	x 1	<u>5</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>50</u>	x 3	<u>150</u>	FACU species	<u>60</u>	x 4	<u>240</u>	UPL species	<u>43</u>	x 5	<u>215</u>	Column Totals	<u>158</u>	(A)	<u>610</u> (B)	Prevalence Index = B/A =			<u>3.86</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL43\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-14	10YR 3/2	100					Sandy Loam	
14-16	10YR 4/2	100					Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200721\_WL44\_W1  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.073955 Long: -78.216827 Datum: NAD83  
Soil Map Unit Name: Wy NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL44</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
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<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
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<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200721\_WL44\_W1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;">Phalaris arundinacea</td> <td style="text-align: center;">100</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">100 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200721\_WL44\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
3-12	10YR 3/1	85	10YR 4/4	15	C	M	Clay Loam		
12-16	10YR 3/1	80	10YR 5/6	20	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200721\_WL44\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 8  
 Subregion (LRR or MLRA): LRR L Lat: 43.074137 Long: -78.216873 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200721\_WL44\_U1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Euthamia graminifolia</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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## SOIL

Sampling Point: 1\_20200721\_WL44\_U1

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color	%	Type	Loc	Texture		
0-14	10YR 3/2		100						Sandy Loam	
14-20	10YR 3/2		95	5YR 4/6	5	C	M		Sandy Clay Loam	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/22/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07222020\_WL45\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.080266 Long: -78.216803 Datum: NAD83  
 Soil Map Unit Name: ApA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL45</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Associated with drainage ditch

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_07222020\_WL45\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;"><u>8</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>OBL</u></td> </tr> <tr> <td><u>Persicaria maculosa</u></td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;"><u>3</u></td> <td></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td colspan="4" style="text-align: right;"><u>16</u> = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07222020\_WL45\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 4/1	95	10YR 4/4	5	C	M	Loamy Sand		
4-16	7.5YR 5/1	90	7.5YR 4/6	10	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/22/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_07222020\_WL45\_U1  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.080195 Long: -78.216840 Datum: NAD83  
Soil Map Unit Name: OnB NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
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<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>  X  </u>
Water Table Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_07222020\_WL45\_U1**

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">3</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">8 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Bromus inermis</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Glycine max</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">7</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">67 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07222020\_WL45\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-9	10YR 2/2	100						Sandy Loam	
9-18	7.5YR 5/3	80	7.5YR 5/8	20	C	M		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Genesees</u>	Sampling Date: <u>7/22/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: _____	Point: <u>1_07222020_WL45_U2</u>
Landform (hillslope, terrace, etc.): <u>Terrace</u>	Local relief (concave, convex, none): <u>None</u>	Slope (%) <u>0 - 10</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.080183</u>	Long: <u>-78.216830</u>
Soil Map Unit Name: <u>RsA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_07222020\_WL45\_U2

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">3</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">8 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Bromus inermis</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">7</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">67 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>5</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>8</u></td> <td>x 2</td> <td style="text-align: center;"><u>16</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td>x 3</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>32</u></td> <td>x 4</td> <td style="text-align: center;"><u>128</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>30</u></td> <td>x 5</td> <td style="text-align: center;"><u>150</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>75</u> (A)</td> <td></td> <td style="text-align: center;"><u>309</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>4.12</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p>_____ 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes _____ No <u>X</u></p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>8</u>	x 2	<u>16</u>	FAC species	<u>5</u>	x 3	<u>15</u>	FACU species	<u>32</u>	x 4	<u>128</u>	UPL species	<u>30</u>	x 5	<u>150</u>	Column Totals	<u>75</u> (A)		<u>309</u> (B)	Prevalence Index = B/A = <u>4.12</u>			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07222020\_WL45\_U2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-9	10YR 2/2	100						Sandy Loam	
9-20	7.5YR 5/3	95	7.5YR 5/8	5	C	M		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200722\_WL46\_W2  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.079274 Long: -78.220638 Datum: NAD83  
 Soil Map Unit Name: RaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL46</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200722\_WL46\_W2

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;"><u>75</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>75</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rhamnus cathartica</u></td> <td style="text-align: center;"><u>70</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>70</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td><u>Persicaria virginiana</u></td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>20</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200722\_WL46\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-7	10YR 2/1	100					Clay Loam	
7-14	10YR 5/1	90	7.5YR 6/6	10	C	M	Clay Loam	
14-18	10YR 4/2	85	7.5YR 5/6	15	C	M	Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/22/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200722\_WL46\_W1  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): None Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.079277 Long: -78.220641 Datum: NAD83  
Soil Map Unit Name: RaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL46</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200722\_WL46\_W1

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<u>Euthamia graminifolia</u>	<u>15</u>		<u>FAC</u>																																																																																										
<u>Solidago gigantea</u>	<u>15</u>		<u>FACW</u>																																																																																										
	<u>125</u>	= Total Cover																																																																																											
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																										
_____																																																																																													
		_____ = Total Cover																																																																																											
OBL species	<u>15</u>	x 1	<u>15</u>																																																																																										
FACW species	<u>100</u>	x 2	<u>200</u>																																																																																										
FAC species	<u>30</u>	x 3	<u>90</u>																																																																																										
FACU species	<u>0</u>	x 4	<u>0</u>																																																																																										
UPL species	<u>0</u>	x 5	<u>0</u>																																																																																										
Column Totals	<u>145</u>	(A)	<u>305</u> (B)																																																																																										
Prevalence Index = B/A =			<u>2.1</u>																																																																																										

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200722\_WL46\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	5Y 4/2	97	10YR 4/4	3	C	M	Sandy Clay Loam		
14-18	7.5YR 5/3	90	10YR 5/6	10	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ Point: 1\_20200722\_WL46\_U1  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.080479 Long: -78.219795 Datum: NAD83  
Soil Map Unit Name: Rsa NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200722\_WL46\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Acer negundo</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">60</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lindera benzoin</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	40	X	FACW	<u>Acer negundo</u>	20	X	FAC		60	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Lindera benzoin</u>	20	X	FACW	<u>Populus deltoides</u>	10	X	FAC		30	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Toxicodendron radicans</u>	30	X	FAC	<u>Alliaria petiolata</u>	10	X	FACU		40	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Parthenocissus quinquefolia</u>	20	X	FACU	<u>Vitis riparia</u>	10	X	FAC		30	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)                      Total Number of Dominant Species Across All Strata: <u>8</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>60</u></td> <td>x 2</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>70</u></td> <td>x 3</td> <td style="text-align: center;"><u>210</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>30</u></td> <td>x 4</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>160</u></td> <td>(A)</td> <td style="text-align: center;"><u>450</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.81</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>      </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>X</u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>X</u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>      </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>      </u> 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>60</u>	x 2	<u>120</u>	FAC species	<u>70</u>	x 3	<u>210</u>	FACU species	<u>30</u>	x 4	<u>120</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>160</u>	(A)	<u>450</u> (B)	Prevalence Index = B/A =			<u>2.81</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200722\_WL46\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 4/6	100						Silt Loam	
10-20	10YR 4/6	90	7.5YR 5/8	10	C	PL		Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200722\_WL47\_W1  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
Subregion (LRR or MLRA): LRR L Lat: 43.108216 Long: -78.232744 Datum: NAD83  
Soil Map Unit Name: CbA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL47-1</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200722\_WL47\_W1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200722\_WL47\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 2/1	95	5YR 5/6	5	C	PL	Silt Loam		
12-16	10YR 6/1	80	7.5YR 5/6	20	C	M	Silty Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/22/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200722\_WL47\_W2  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): None Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.108174 Long: -78.233044 Datum: NAD83  
 Soil Map Unit Name: CbA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL47-2</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Fallow agricultural field; may have been sprayed by pesticide recently

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 1  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 5  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200722\_WL47\_W2

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200722\_WL47\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-9	2.5Y 3/1	95	10YR 4/6	5	C	M	Clay Loam		
9-16	2.5Y 2.5/1	100					Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/22/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200722\_WL48\_W1  
 Landform (hillslope, terrace,etc.): Dip Local relief (concave, convex, none): Linear Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.107837 Long: -78.232852 Datum: NAD83  
 Soil Map Unit Name: CbA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL48</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Along dirt access road

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 0  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 1\_20200722\_WL48\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: 30'radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: 15'radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: 5'radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td><u>Agrostis stolonifera</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td colspan="4" style="text-align: right;">55 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: 30'radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Agrostis stolonifera</u>	50	X	FACW	<u>Typha angustifolia</u>	5		OBL	55 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>5</u></td> <td>x 1</td> <td style="text-align: center;"><u>5</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>50</u></td> <td>x 2</td> <td style="text-align: center;"><u>100</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>55</u></td> <td>(A)</td> <td style="text-align: center;"><u>105</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.91</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">X</td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>5</u>	x 1	<u>5</u>	FACW species	<u>50</u>	x 2	<u>100</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>55</u>	(A)	<u>105</u> (B)	Prevalence Index = B/A =			<u>1.91</u>	X	1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200722\_WL48\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-12	10YR 4/2	80	10YR 5/8	20	C	M	Clay	
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input checked="" type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/22/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200722\_WL47/W48\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): None Slope (%) 0 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.107831 Long: -78.232790 Datum: NAD83  
Soil Map Unit Name: CbA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200722\_WL47/

W48 U1

**Tree Stratum**

 (Plot Size: 30'radius )

Absolute % Cover    Dominant Species?    Indicator Status

\_\_\_\_\_ = Total Cover

**Shrub Stratum**

 (Plot Size: 15'radius )

Absolute % Cover    Dominant Species?    Indicator Status

\_\_\_\_\_ = Total Cover

**Herb Stratum**

 (Plot Size: 5'radius )

Absolute % Cover    Dominant Species?    Indicator Status

<u>Lotus corniculatus</u>	<u>25</u>	<u>X</u>	<u>FACU</u>
<u>Phleum pratense</u>	<u>20</u>	<u>X</u>	<u>FACU</u>
<u>Dactylis glomerata</u>	<u>20</u>	<u>X</u>	<u>FACU</u>
<u>Cirsium arvense</u>	<u>15</u>	<u>X</u>	<u>FACU</u>
<u>Trifolium pratense</u>	<u>15</u>	<u>X</u>	<u>FACU</u>
<u>Toxicodendron radicans</u>	<u>10</u>		<u>FAC</u>
<u>Agrostis gigantea</u>	<u>10</u>		<u>FACW</u>
<u>Phalaris arundinacea</u>	<u>10</u>		<u>FACW</u>
<u>Daucus carota</u>	<u>5</u>		<u>UPL</u>
<u>Cichorium intybus</u>	<u>5</u>		<u>FACU</u>
	<u>135</u>		= Total Cover

**Woody Vine Stratum**

 (Plot Size: 30'radius )

Absolute % Cover    Dominant Species?    Indicator Status

\_\_\_\_\_ = Total Cover

**Dominance Test Worksheet:**

 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across All Strata: 5 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>0</u>	x 1	<u>0</u>
FACW species	<u>20</u>	x 2	<u>40</u>
FAC species	<u>10</u>	x 3	<u>30</u>
FACU species	<u>100</u>	x 4	<u>400</u>
UPL species	<u>5</u>	x 5	<u>25</u>
Column Totals	<u>135</u>	(A)	<u>495</u> (B)
Prevalence Index = B/A =			<u>3.67</u>

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- 2- Dominance Test is > 50%
- 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

 Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200722\_WL47/  
W48\_U1

Depth (inches)	Matrix		Redox Features						W48_U1
	Color	%	Color	%	Type	Loc	Texture	Remarks	
0-11	10YR 4/3	99	10YR 6/2	1	C	M	Sandy Clay Loam		
11-20	10YR 4/3	95	10YR 5/8	5	C	M	Sandy Clay Loam		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/22/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200722\_WL49\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.107692 Long: -78.235515 Datum: NAD83  
 Soil Map Unit Name: CbA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL49</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> Microtopographic Relief (D4)
	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200722\_WL49\_W1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Acer rubrum</u>		<u>65</u>	<u>X</u>	<u>FAC</u>
<u>Ulmus americana</u>		<u>30</u>	<u>X</u>	<u>FACW</u>
		<u>95</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Lindera benzoin</u>		<u>20</u>	<u>X</u>	<u>FACW</u>
		<u>20</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Dryopteris carthusiana</u>		<u>15</u>	<u>X</u>	<u>FACW</u>
<u>Saururus cernuus</u>		<u>15</u>	<u>X</u>	<u>OBL</u>
		<u>30</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
		<u>5</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 6 (A)  
 Total Number of Dominant  
 Species Across All Strata: 6 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index Worksheet:**

OBL species 15 x 1 15  
 FACW species 65 x 2 130  
 FAC species 70 x 3 210  
 FACU species 0 x 4 0  
 UPL species 0 x 5 0  
 Column Totals 150 (A) 355 (B)  
 Prevalence Index = B/A = 2.37

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200722\_WL49\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-7	10YR 2/1	100					Sandy Clay Loam	
7-16	10YR 6/1	85	10YR 6/6	15	C	M	Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/22/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200722\_WL49\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 1 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.107899 Long: -78.235469 Datum: NAD83  
Soil Map Unit Name: CbA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200722\_WL49\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td>FACW</td> </tr> <tr> <td><u>Ulmus americana</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td>FACW</td> </tr> <tr> <td><u>Fagus grandifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td>FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">90</td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rhamnus cathartica</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td>FAC</td> </tr> <tr> <td><u>Unknown species</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td>UNK</td> </tr> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td>FACU</td> </tr> <tr> <td><u>Rubus idaeus</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td>FACU</td> </tr> <tr> <td><u>Lindera benzoin</u></td> <td style="text-align: center;">5</td> <td></td> <td>FACW</td> </tr> <tr> <td><u>Rosa multiflora</u></td> <td style="text-align: center;">5</td> <td></td> <td>FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">65</td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td>FACU</td> </tr> <tr> <td><u>Circaea canadensis</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td>FACU</td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td style="text-align: center;">5</td> <td></td> <td>FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	40	X	FACW	<u>Ulmus americana</u>	40	X	FACW	<u>Fagus grandifolia</u>	10		FACU		90	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Rhamnus cathartica</u>	25	X	FAC	<u>Unknown species</u>	10	X	UNK	<u>Lonicera morrowii</u>	10	X	FACU	<u>Rubus idaeus</u>	10	X	FACU	<u>Lindera benzoin</u>	5		FACW	<u>Rosa multiflora</u>	5		FACU		65	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Alliaria petiolata</u>	15	X	FACU	<u>Circaea canadensis</u>	10	X	FACU	<u>Ranunculus hispidus</u>	5		FAC		30	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status							= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>8</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>37.5%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>85</u></td> <td>x 2</td> <td style="text-align: center;"><u>170</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>30</u></td> <td>x 3</td> <td style="text-align: center;"><u>90</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>60</u></td> <td>x 4</td> <td style="text-align: center;"><u>240</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>175</u></td> <td>(A)</td> <td style="text-align: center;"><u>500</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.86</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>        </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>        </u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;">X 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>        </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>        </u> 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>        </u> No <u>  X  </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>85</u>	x 2	<u>170</u>	FAC species	<u>30</u>	x 3	<u>90</u>	FACU species	<u>60</u>	x 4	<u>240</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>175</u>	(A)	<u>500</u> (B)	Prevalence Index = B/A =			<u>2.86</u>
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Prevalence Index = B/A =			<u>2.86</u>																																																																																																														

 Remarks: (Include photo numbers here or on a separate sheet.)  
 Unknown apple species

## SOIL

Sampling Point: 1\_20200722\_WL49\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	7.5YR 3/1	100						Sandy Loam	
12-20	7.5YR 3/1	99	7.5YR 4/6	1	C	M		Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 7/23/2020  
 Applicant/Owner: Hecate State: NY Sampling  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_07232020\_WL50\_U1  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%) 0 - 15  
 Subregion (LRR or MLRA): LRR L Lat: 43.099432 Long: -78.225268 Datum: NAD83  
 Soil Map Unit Name: Ma NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_07232020\_WL50\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Juglans cinerea</u></td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>10</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rubus idaeus</u></td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>35</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;"><u>40</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td><u>Euthamia graminifolia</u></td> <td style="text-align: center;"><u>20</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td><u>Symphotrichum lateriflorum</u></td> <td style="text-align: center;"><u>5</u></td> <td></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>65</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>5</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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(7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>      </u> No <u>X</u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>25</u>	x 3	<u>75</u>	FACU species	<u>90</u>	x 4	<u>360</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>115</u>	(A)	<u>435</u> (B)	Prevalence Index = B/A =			<u>3.78</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07232020\_WL50\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-12	10YR 3/2	100					Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: Rock _____ Depth (inches): 12 _____							Hydric Soil Present?    Yes _____ No <input checked="" type="checkbox"/> X	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07232020\_WL51\_W1  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): None Slope (%) 0 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.106205 Long: -78.235031 Datum: NAD83  
Soil Map Unit Name: Ma NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL51</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
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Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_07232020\_WL51\_W1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07232020\_WL51\_W1

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color	%	Type	Loc	Texture		
0-13	10YR	2/1	100						Sandy Loam	
13-18	2.5Y	6/1	85	2.5Y	6/1	15	C	M	Loamy Sand	
</										

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/20/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07232020\_WL51\_W2  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): None Slope (%) 0 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.106078 Long: -78.234980 Datum: NAD83  
Soil Map Unit Name: Ma NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL51-2</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of agricultural field

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_07232020\_WL51\_W2

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07232020\_WL51\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-5	10YR 3/1	90	7.5YR 4/6	10	C	PL	Loam		
5-13	10YR 4/2	90	7.5YR 4/6	10	C	M	Sandy Loam		
13-18	2.5Y 6/1	90	2.5Y 4/6	10	C	M	Loamy Sand		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_07232020\_WL51\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): None Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.105810 Long: -78.234917 Datum: NAD83  
Soil Map Unit Name: NgA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_07232020\_WL51\_U1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Unknown species</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UNK</td> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Avena sativa</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Chenopodium album</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Plantago major</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">68 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass species; area may have been sprayed recently

## SOIL

Sampling Point: 1\_07232020\_WL51\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-18	10YR 3/2	95	10YR 4/6	5	C	M	Sandy Loam		
18-20	10YR 2/1	90	7.5YR 6/1	10	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/20/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_07232020\_WL52\_W1  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
Subregion (LRR or MLRA): LRR L Lat: 43.107663 Long: -78.231590 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL52</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of corn field

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_07232020\_WL52\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td rowspan="2">= Total Cover</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td rowspan="2">= Total Cover</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td><u>Echinochloa crus-galli</u></td> <td><u>5</u></td> <td><u>X</u></td> <td><u>FAC</u></td> <td rowspan="3">= Total Cover</td> </tr> <tr> <td><u>Cyperus strigosus</u></td> <td><u>3</u></td> <td><u>X</u></td> <td><u>FACW</u></td> </tr> <tr> <td>_____</td> <td><u>8</u></td> <td></td> <td></td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td rowspan="2">= Total Cover</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07232020\_WL52\_W1

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color		%	Type	Loc	Texture	
0-7	2.5Y	2.5/1	95	10YR	4/4	5	C	PL	Silt Loam	
7-14	10YR	3/1	95	10YR	4/6	5	C	M	Silty Clay Loam	
14-20	2.5Y	6/1	85	2.5Y	4/6	15	C	M	Loamy Sand	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200723\_WL52\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): None Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.107644 Long: -78.230914 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)	____ FAC-Neutral Test (D5)
____ Water-Stained Leaves (B9)	
____ Aquatic Fauna (B13)	
____ Marl Deposits (B15)	
____ Hydrogen Sulfide Odor (C1)	
____ Oxidized Rhizospheres on Living Roots (C3)	
____ Presence of Reduced Iron (C4)	
____ Recent Iron Reduction in Tilled Soils (C6)	
____ Thin Muck Surface (C7)	
____ Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200723\_WL52\_U1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"><u>Zea mays</u></td> <td style="text-align: center;"><u>75</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>UPL</u></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)																																																																													

## SOIL

Sampling Point: 1\_20200723\_WL52\_U1

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color	%	Type	Loc	Texture		
0-6	2.5Y	3/2	100						Silty Clay Loam	
6-14	2.5Y	3/2	95	10YR	4/4	5	C	M	Silty Clay Loam	
14-20	2.5Y	3/2	70	2.5Y	4/6	30	C	M	Clay Loam	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
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☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/23/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200723\_WL53\_W1  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%) 5 - 15  
 Subregion (LRR or MLRA): LRR L Lat: 43.105327 Long: -78.227485 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL53</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Riparian area associated with stream

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200723\_WL53\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rhamnus cathartica</u></td> <td style="text-align: center;">35</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cornus amomum</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">65</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Bidens frondosa</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Boehmeria cylindrica</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>4</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>10</u></td> <td>x 1</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>125</u></td> <td>x 2</td> <td style="text-align: center;"><u>250</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>35</u></td> <td>x 3</td> <td style="text-align: center;"><u>105</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>15</u></td> <td>x 4</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>185</u></td> <td>(A)</td> <td style="text-align: center;"><u>425</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.3</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	<u>10</u>	x 1	<u>10</u>	FACW species	<u>125</u>	x 2	<u>250</u>	FAC species	<u>35</u>	x 3	<u>105</u>	FACU species	<u>15</u>	x 4	<u>60</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>185</u>	(A)	<u>425</u> (B)	Prevalence Index = B/A =			<u>2.3</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200723\_WL53\_W1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-4	10YR 3/1	95	10YR 3/4	5	C	M	Sandy Clay Loam	
4-6	10YR 4/2	80	10YR 6/8	20	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b> <div> Type: <u>Rock</u> </div> <div> Depth (inches): <u>6</u> </div>							Hydric Soil Present?    Yes <u>X</u> No <u>      </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200723\_WL53\_W2  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 1 - 3  
Subregion (LRR or MLRA): LRR L Lat: 43.104319 Long: -78.227260 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL53</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Associated with stream

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 3  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 0  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200723\_WL53\_W2**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"> <u>Typha angustifolia</u> </td> <td style="text-align: center;">75</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">75 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>75</u></td> <td>x 1</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>75</u></td> <td>(A)</td> <td style="text-align: center;"><u>75</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">X</td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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	5- Problematic Hydrophytic Vegetation																																																																																						

Remarks: (Include photo numbers here or on a separate sheet.)

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks: Hydric soils assumed due to presence of primary hydrology and dominant obligate vegetation.

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/24/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ Point: 1\_20200723\_WL53\_U1  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.105302 Long: -78.227565 Datum: NAD83  
Soil Map Unit Name: CIB NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)	____ FAC-Neutral Test (D5)
____ Water-Stained Leaves (B9)	
____ Aquatic Fauna (B13)	
____ Marl Deposits (B15)	
____ Hydrogen Sulfide Odor (C1)	
____ Oxidized Rhizospheres on Living Roots (C3)	
____ Presence of Reduced Iron (C4)	
____ Recent Iron Reduction in Tilled Soils (C6)	
____ Thin Muck Surface (C7)	
____ Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200723\_WL53\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Equisetum arvense</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">30 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">10 = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Parthenocissus quinquefolia</u>	10	X	FACU	10 = Total Cover				<div> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)                 </div> <hr/> <div> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>5</u></td> <td>x 1</td> <td style="text-align: center;"><u>5</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>20</u></td> <td>x 3</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>15</u></td> <td>x 4</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>40</u></td> <td>(A)</td> <td style="text-align: center;"><u>125</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>3.12</u></td> </tr> </table> </div> <hr/> <div> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <hr/> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200723\_WL53\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-20	10YR 3/3	100					Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/23/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200723\_WL54  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.085337 Long: -78.213647 Datum: NAD83  
 Soil Map Unit Name: ApA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL54</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Associated with drainage ditch

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u>X</u> Drainage Patterns (B10)
_____ Water-Stained Leaves (B9)	_____ Moss Trim Lines (B16)
_____ High Water Table (A2)	_____ Dry-Season Water Table (C2)
_____ Saturation (A3)	_____ Crayfish Burrows (C8)
_____ Water Marks (B1)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Sediment Deposits (B2)	_____ Stunted or Stressed Plants (D1)
_____ Drift Deposits (B3)	_____ Geomorphic Position (D2)
_____ Algal Mat or Crust (B4)	_____ Shallow Aquitard (D3)
_____ Iron Deposits (B5)	_____ Microtopographic Relief (D4)
_____ Inundation Visible on Aerial Imagery (B7)	<u>X</u> FAC-Neutral Test (D5)
_____ Sparsley Vegetated Concave Surface (B8)	

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200723\_WL54**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="5" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="5" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td><u>75</u></td> <td><u>X</u></td> <td><u>FACW</u></td> <td></td> </tr> <tr> <td><u>Phragmites australis</u></td> <td><u>25</u></td> <td><u>X</u></td> <td><u>FACW</u></td> <td></td> </tr> <tr> <td colspan="5" style="text-align: right;"><u>100</u> = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="5" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status		_____	_____	_____	_____	_____	_____ = Total Cover					<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>100</u></td> <td>x 2</td> <td><u>200</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td><u>100</u></td> <td>(A)</td> <td><u>200</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>2</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"><u>X</u></td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td><u>X</u></td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td><u>X</u></td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Yes <u>X</u> No _____                 </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>100</u>	x 2	<u>200</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>100</u>	(A)	<u>200</u> (B)	Prevalence Index = B/A =			<u>2</u>	<u>X</u>	1- Rapid Test For Hydrophytic Vegetation	<u>X</u>	2- Dominance Test is > 50%	<u>X</u>	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)																																																																																																								

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks: Hydric soils assumed due to presence of primary hydrology and dominant FACW vegetation.

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/28/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200928\_WL54\_W2  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 5 - 10  
 Subregion (LRR or MLRA): LRR L Lat: 43.085554 Long: -78.216076 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL54</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsely Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200928\_WL54\_W2

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Acer saccharinum</u>		<u>80</u>	<u>X</u>	<u>FACW</u>
		<u>80</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Rhamnus cathartica</u>		<u>60</u>	<u>X</u>	<u>FAC</u>
		<u>60</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Carex cristatella</u>		<u>8</u>	<u>X</u>	<u>FACW</u>
<u>Glyceria striata</u>		<u>8</u>	<u>X</u>	<u>OBL</u>
<u>Viola sororia</u>		<u>5</u>		<u>FAC</u>
<u>Circaea canadensis</u>		<u>5</u>		<u>FACU</u>
<u>Carex grayi</u>		<u>5</u>		<u>FACW</u>
		<u>31</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		<u>10</u>	<u>X</u>	<u>FAC</u>
		<u>10</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 5 (A)  
 Total Number of Dominant  
 Species Across All Strata: 5 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index Worksheet:**

OBL species 8 x 1 8  
 FACW species 93 x 2 186  
 FAC species 75 x 3 225  
 FACU species 5 x 4 20  
 UPL species 0 x 5 0  
 Column Totals 181 (A) 439 (B)  
 Prevalence Index = B/A = 2.43

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200928\_WL54\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-7	10YR 3/1	90	10Y 3/6	10	C	PL	Sandy Clay Loam	
7-16	10YR 5/2	85	10YR 4/6	15	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/22/2020  
 Applicant/Owner: Hecate State: NY Sampling  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200723\_WL54\_U1  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.085298 Long: -78.213700 Datum: NAD83  
 Soil Map Unit Name: ApA NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>  X  </u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>  X  </u> if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>  X  </u>	
Wetland Hydrology Present?	Yes _____	No <u>  X  </u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200723\_WL54\_U1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Trifolium pratense</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Phleum pratense</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Leucanthemum vulgare</u></td> <td style="text-align: center;">8</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">8</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Setaria pumila</u></td> <td style="text-align: center;">7</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">6</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Acalypha rhomboidea</u></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Erigeron annuus</u></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Rumex crispus</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">84</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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(7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <hr/> <div style="text-align: right; padding-right: 20px;">                     Hydrophytic Vegetation Present? Yes <u>        </u> No <u>  X  </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>5</u>	x 2	<u>10</u>	FAC species	<u>9</u>	x 3	<u>27</u>	FACU species	<u>47</u>	x 4	<u>188</u>	UPL species	<u>23</u>	x 5	<u>115</u>	Column Totals	<u>84</u> (A)		<u>340</u> (B)	Prevalence Index = B/A =			<u>4.05</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200723\_WL54\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/2	100						Sandy Loam	
12-18	10YR 3/2	85	2.5YR 4/8	15	C	M		Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/23/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200723\_WL55\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.084250 Long: -78.214293 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL55</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>  X  </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>  X  </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200723\_WL55\_W1

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Indicator Status		_____	_____	_____	_____	= Total Cover	_____	_____	_____	_____		Absolute % Cover	Dominant Species?	Indicator Status		<u>Cornus amomum</u>	<u>5</u>	<u>X</u>	<u>FACW</u>	= Total Cover	<u>Fraxinus pennsylvanica</u>	<u>3</u>	<u>X</u>	<u>FACW</u>	_____	<u>8</u>	_____	_____		Absolute % Cover	Dominant Species?	Indicator Status		<u>Phragmites australis</u>	<u>90</u>	<u>X</u>	<u>FACW</u>	= Total Cover	<u>Symphotrichum lanceolatum</u>	<u>5</u>	_____	<u>FACW</u>	<u>Solanum dulcamara</u>	<u>5</u>	_____	<u>FAC</u>	<u>Equisetum arvense</u>	<u>3</u>	_____	<u>FAC</u>	_____	<u>103</u>	_____	_____		Absolute % Cover	Dominant Species?	Indicator Status		<u>Parthenocissus quinquefolia</u>	<u>6</u>	<u>X</u>	<u>FACU</u>	= Total Cover	<u>Vitis riparia</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	_____	<u>11</u>	_____	_____	<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>5</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>103</u></td> <td>x 2</td> <td><u>206</u></td> </tr> <tr> <td>FAC species</td> <td><u>13</u></td> <td>x 3</td> <td><u>39</u></td> </tr> <tr> <td>FACU species</td> <td><u>6</u></td> <td>x 4</td> <td><u>24</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td><u>122</u></td> <td>(A)</td> <td><u>269</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td><u>2.2</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>103</u>	x 2	<u>206</u>	FAC species	<u>13</u>	x 3	<u>39</u>	FACU species	<u>6</u>	x 4	<u>24</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>122</u>	(A)	<u>269</u> (B)	Prevalence Index = B/A =			<u>2.2</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200723\_WL55\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-9	10YR 3/1	90	10YR 4/4	10	C	M	Sandy Loam		
9-20	10YR 3/2	90	10YR 4/6	10	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200723\_WL55\_W2  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 2 - 4  
 Subregion (LRR or MLRA): LRR L Lat: 43.084367 Long: -78.215222 Datum: NAD83  
 Soil Map Unit Name: OvA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL55</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>X</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200723\_WL55\_W2

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		<u>75</u>	<u>X</u>	<u>FACW</u>
		<u>75</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		<u>20</u>	<u>X</u>	<u>FACW</u>
		<u>20</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Lysimachia nummularia</u>		<u>15</u>	<u>X</u>	<u>FACW</u>
<u>Glyceria striata</u>		<u>10</u>	<u>X</u>	<u>OBL</u>
		<u>25</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Vitis riparia</u>		<u>10</u>	<u>X</u>	<u>FAC</u>
		<u>10</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>10</u>	x 1	<u>10</u>
FACW species	<u>110</u>	x 2	<u>220</u>
FAC species	<u>10</u>	x 3	<u>30</u>
FACU species	<u>0</u>	x 4	<u>0</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>130</u>	(A)	<u>260</u> (B)
Prevalence Index = B/A =			<u>2</u>

**Hydrophytic Vegetation Indicators:**

1- Rapid Test For Hydrophytic Vegetation

X 2- Dominance Test is > 50%

X 3- Prevalence Index is =< 3.0

4- Morphological Adaptations

5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic Vegetation Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200723\_WL55\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	7.5YR	2.5/1 100						Loam	
4-15	10YR	3/1 90	5YR	3/4 10	C	M		Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200723\_WL55\_W3  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR R Lat: 43.084008 Long: -78.214274 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL55</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200723\_WL55\_W3

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">75</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Rosa multiflora</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">80</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Solidago gigantea</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Lysimachia nummularia</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>200</u></td> <td>x 2</td> <td style="text-align: center;"><u>400</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>5</u></td> <td>x 4</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>205</u></td> <td>(A)</td> <td style="text-align: center;"><u>420</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>2.05</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><u>X</u> 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200723\_WL55\_W3

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color	%	Type	Loc	Texture		
0-12	7.5YR	2.5/1	100					Sandy Loam		
12-18	2.5Y	5/1	85	10YR 4/6	15	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>										
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:										

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200723\_WL55\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.084181 Long: -78.214178 Datum: NAD83  
Soil Map Unit Name: HIB NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200723\_WL55\_U1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Populus deltoides</u>		<u>50</u>	<u>X</u>	<u>FAC</u>
<u>Salix nigra</u>		<u>20</u>	<u>X</u>	<u>OBL</u>
		<u>70</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Cornus racemosa</u>		<u>25</u>	<u>X</u>	<u>FAC</u>
<u>Lonicera morrowii</u>		<u>15</u>	<u>X</u>	<u>FACU</u>
		<u>40</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Solidago canadensis</u>		<u>25</u>	<u>X</u>	<u>FACU</u>
<u>Euthamia graminifolia</u>		<u>25</u>	<u>X</u>	<u>FAC</u>
<u>Equisetum arvense</u>		<u>5</u>		<u>FAC</u>
<u>Phragmites australis</u>		<u>5</u>		<u>FACW</u>
<u>Ranunculus acris</u>		<u>3</u>		<u>FAC</u>
<u>Geum canadense</u>		<u>3</u>		<u>FAC</u>
		<u>66</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus quinquefolia</u>		<u>5</u>	<u>X</u>	<u>FACU</u>
		<u>5</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant  
 Species Across All Strata: 7 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 57.1% (A/B)

**Prevalence Index Worksheet:**

OBL species 20 x 1 20  
 FACW species 5 x 2 10  
 FAC species 111 x 3 333  
 FACU species 45 x 4 180  
 UPL species 0 x 5 0  
 Column Totals 181 (A) 543 (B)  
 Prevalence Index = B/A = 3

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation  
X 2- Dominance Test is > 50%  
X 3- Prevalence Index is =< 3.0  
 4- Morphological Adaptations  
 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200723\_WL55\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/2	100						Sandy Loam	
12-20	10YR 3/2	98	10YR 4/6	2	C	M		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 7/24/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200724\_WL56\_W1  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Linear Slope (%) 0 - 15  
 Subregion (LRR or MLRA): LRR L Lat: 43.107468 Long: -78.253776 Datum: NAD83  
 Soil Map Unit Name: W NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL56</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

riparian along stream

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	Drainage Patterns (B10)
_____ Water-Stained Leaves (B9)	Moss Trim Lines (B16)
<u>X</u> High Water Table (A2)	Dry-Season Water Table (C2)
_____ Saturation (A3)	Crayfish Burrows (C8)
<u>X</u> Water Marks (B1)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
_____ Sediment Deposits (B2)	Stunted or Stressed Plants (D1)
_____ Drift Deposits (B3)	<u>X</u> Geomorphic Position (D2)
_____ Algal Mat or Crust (B4)	Shallow Aquitard (D3)
_____ Iron Deposits (B5)	Microtopographic Relief (D4)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
_____ Sparsley Vegetated Concave Surface (B8)	

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 24  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 0  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200724\_WL56\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer negundo</u></td> <td style="text-align: center;"><u>70</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td colspan="3"><u>70</u> = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td> </td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3"> </td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Impatiens pallida</u></td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td><u>Brassica juncea</u></td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>UPL</u></td> </tr> <tr> <td><u>Urtica dioica</u></td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td><u>Eutrochium maculatum</u></td> <td style="text-align: center;"><u>10</u></td> <td></td> <td style="text-align: center;"><u>OBL</u></td> </tr> <tr> <td><u>Xanthium strumarium</u></td> <td style="text-align: center;"><u>10</u></td> <td></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td colspan="3"><u>65</u> = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td colspan="3"><u>15</u> = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

**Remarks:**

Floodplain wetland, soils assumed hydric due to primary hydrology indicators and hydrophytic vegetation in stream channel.

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/24/2020  
Applicant/Owner: Hecate State: NY Sampling  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ Point: 1\_20200724\_WL56\_U1  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.107573 Long: -78.253747 Datum: NAD83  
Soil Map Unit Name: RoA NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Mowed access road

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>  X  </u>
Water Table Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

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Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass species, due to recent mowing

## SOIL

Sampling Point: 1\_20200724\_WL56\_U1

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color	%	Type	Loc	Texture		
0-4	10YR 3/2		100					Sandy Loam		
4-9	10YR 3/2		95	10YR 4/6	5	C	M	Sandy Loam		
9-18	7.5YR 5/3		85	7.5YR 5/8	15	C	M	Sand		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No   X  

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/8/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200708-WL-01-1W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.109566 Long: -78.185488 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL57</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200708-WL-01-1W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">50</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lindera benzoin</u></td> <td style="text-align: center;">35</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Carpinus caroliniana</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">55</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Carex blanda</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Impatiens capensis</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">45</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	50	X	FACW		50	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Lindera benzoin</u>	35	X	FACW	<u>Carpinus caroliniana</u>	20	X	FAC		55	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Carex blanda</u>	20	X	FAC	<u>Impatiens capensis</u>	15	X	FACW	<u>Toxicodendron radicans</u>	10	X	FAC		45	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Parthenocissus quinquefolia</u>	15	X	FACU	<u>Vitis riparia</u>	5	X	FAC		20	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)                      Total Number of Dominant Species Across All Strata: <u>8</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>87.5%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>100</u></td> <td>x 2</td> <td style="text-align: center;"><u>200</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>55</u></td> <td>x 3</td> <td style="text-align: center;"><u>165</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>15</u></td> <td>x 4</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>170</u></td> <td>(A)</td> <td style="text-align: center;"><u>425</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.5</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>      </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>X</u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>X</u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>      </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>      </u> 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>100</u>	x 2	<u>200</u>	FAC species	<u>55</u>	x 3	<u>165</u>	FACU species	<u>15</u>	x 4	<u>60</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>170</u>	(A)	<u>425</u> (B)	Prevalence Index = B/A =			<u>2.5</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200708-WL-01-1W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 2/2	100						Clay Loam	
6-18	7.5YR 5/2	90	10YR 6/8	10	C	PL		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/13/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200713-WL-13-13W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.106787 Long: -78.184244 Datum: NAD83  
 Soil Map Unit Name: OvA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL57</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
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<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 5

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200713-WL-13-13W

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Carex retrorsa</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Carex cristatella</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Dactylis glomerata</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Scirpus atrovirens</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Agrostis gigantea</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Prunella vulgaris</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">155</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200713-WL-13-13W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 3/2	100					Sandy Clay Loam	
6-20	10YR 7/4	80	10YR 6/6	20	C	PL	Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input checked="" type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/8/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200708-WL-01-1U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Convex</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.109319</u>	Long: <u>-78.185688</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

Wetland Hydrology Present?    Yes            No    X

eID: 20200727121402

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200708-WL-01-1U

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<u>Carpinus caroliniana</u>	30	X	FAC																																																																																																												
<u>Fraxinus pennsylvanica</u>	10	X	FACW																																																																																																												
	40	= Total Cover																																																																																																													
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<u>Impatiens capensis</u>	30	X	FACW																																																																																																												
<u>Lindera benzoin</u>	15	X	FACW																																																																																																												
<u>Fraxinus pennsylvanica</u>	15	X	FACW																																																																																																												
<u>Solidago altissima</u>	10		FACU																																																																																																												
<u>Parthenocissus quinquefolia</u>	10		FACU																																																																																																												
<u>Phragmites australis</u>	5		FACW																																																																																																												
	85	= Total Cover																																																																																																													
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																												
<u>Vitis riparia</u>	10	X	FAC																																																																																																												
	10	= Total Cover																																																																																																													
OBL species	<u>0</u>	x 1	<u>0</u>																																																																																																												
FACW species	<u>75</u>	x 2	<u>150</u>																																																																																																												
FAC species	<u>80</u>	x 3	<u>240</u>																																																																																																												
FACU species	<u>20</u>	x 4	<u>80</u>																																																																																																												
UPL species	<u>0</u>	x 5	<u>0</u>																																																																																																												
Column Totals	<u>175</u>	(A)	<u>470</u> (B)																																																																																																												
Prevalence Index = B/A =			<u>2.69</u>																																																																																																												
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200708-WL-01-1U

Depth (inches)	Matrix		Redox Features				Remarks	
	Color	%	Color	%	Type	Loc		Texture
0-6	10YR 4/3	100					Silt Loam	
6-16	7.5YR 5/6	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/13/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200713-WL-13-13U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.106867</u>	Long: <u>-78.188163</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

Wetland Hydrology Present?    Yes            No    X

eID: 20200729171902

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200713-WL-13-13U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Panicum virgatum</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Rorippa palustris</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Cyperus esculentus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">100 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status	<u>Abutilon theophrasti</u>	40	X	FACU	<u>Panicum virgatum</u>	30	X	FAC	<u>Ambrosia artemisiifolia</u>	10		FACU	<u>Rorippa palustris</u>	10		OBL	<u>Cyperus esculentus</u>	5		FACW	<u>Solidago canadensis</u>	5		FACU		100 = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>30</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>90</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>55</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>220</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>100</u> (A)</td> <td></td> <td style="text-align: center;"><u>330</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.3</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes _____ No <u>X</u> </div>	OBL species	<u>10</u>	x 1	<u>10</u>	FACW species	<u>5</u>	x 2	<u>10</u>	FAC species	<u>30</u>	x 3	<u>90</u>	FACU species	<u>55</u>	x 4	<u>220</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>100</u> (A)		<u>330</u> (B)	Prevalence Index = B/A =			<u>3.3</u>
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Remarks: (Include photo numbers here or on a separate sheet.)          																																																																																																	

## SOIL

Sampling Point: 02-20200713-WL-13-13U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 3/2	100					Silt Loam	
6-12	10YR 3/2	95	10YR 5/6	5	C	PL	Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/8/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02\_20200708-WL-02-2W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.107801 Long: -78.184616 Datum: NAD83  
Soil Map Unit Name: OvA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL58</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
_____ High Water Table (A2)	<u>X</u> Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02\_20200708-WL-02-2W

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td><u>Typha angustifolia</u></td><td><u>40</u></td><td><u>X</u></td><td><u>OBL</u></td></tr> <tr><td><u>Leersia oryzoides</u></td><td><u>30</u></td><td><u>X</u></td><td><u>OBL</u></td></tr> <tr><td><u>Phleum pratense</u></td><td><u>20</u></td><td><u>X</u></td><td><u>FACU</u></td></tr> <tr><td><u>Phalaris arundinacea</u></td><td><u>20</u></td><td><u>X</u></td><td><u>FACW</u></td></tr> <tr><td><u>Xanthium strumarium</u></td><td><u>20</u></td><td><u>X</u></td><td><u>FAC</u></td></tr> <tr><td><u>Carex alopecoidea</u></td><td><u>20</u></td><td><u>X</u></td><td><u>FACW</u></td></tr> <tr><td><u>Agrostis gigantea</u></td><td><u>10</u></td><td></td><td><u>FACW</u></td></tr> <tr><td><u>Abutilon theophrasti</u></td><td><u>5</u></td><td></td><td><u>FACU</u></td></tr> <tr><td><u>Dipsacus fullonum</u></td><td><u>5</u></td><td></td><td><u>FACU</u></td></tr> <tr><td><u>Eleocharis obtusa</u></td><td><u>5</u></td><td></td><td><u>OBL</u></td></tr> <tr> <td colspan="2" style="text-align: right;"><u>175</u></td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02\_20200708-WL-02-2W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 2/2	95	7.5YR 5/8	5	C	PL	Clay Loam		
12-24	10YR 4/2	75	7.5YR 7/1	25	D	M	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/8/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200708-WL-02-2U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.107831</u>	Long: <u>-78.185015</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

disturbed, adjacent to cultivated corn field

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____

Wetland Hydrology Present?    Yes            No    X

Remarks:

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OBL species	<u>0</u>	x 1	<u>0</u>																																																																																						
FACW species	<u>20</u>	x 2	<u>40</u>																																																																																						
FAC species	<u>0</u>	x 3	<u>0</u>																																																																																						
FACU species	<u>40</u>	x 4	<u>160</u>																																																																																						
UPL species	<u>60</u>	x 5	<u>300</u>																																																																																						
Column Totals	<u>120</u> (A)		<u>500</u> (B)																																																																																						
Prevalence Index = B/A = <u>4.17</u>																																																																																									

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200708-WL-02-2U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 3/4	95	7.5YR 6/8	5	C	PL	Silt Loam		
6-12	10YR 3/4	60	7.5YR 6/8	40	C	M	Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/8/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200708-WL-03-3W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.111208 Long: -78.186188 Datum: NAD83  
 Soil Map Unit Name: ApA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL59</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>  X  </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>  X  </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>  X  </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200708-WL-03-3W

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Leersia oryzoides</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Equisetum arvense</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Carex lupuliformis</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td colspan="4" style="text-align: right;">100 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Leersia oryzoides</u>	40	X	OBL	<u>Equisetum arvense</u>	30	X	FAC	<u>Carex lupuliformis</u>	20	X	OBL	<u>Typha angustifolia</u>	10		OBL	100 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>70</u></td> <td>x 1</td> <td style="text-align: center;"><u>70</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>30</u></td> <td>x 3</td> <td style="text-align: center;"><u>90</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>100</u></td> <td>(A)</td> <td style="text-align: center;"><u>160</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.6</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	<u>70</u>	x 1	<u>70</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>30</u>	x 3	<u>90</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>100</u>	(A)	<u>160</u> (B)	Prevalence Index = B/A =			<u>1.6</u>
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 Remarks: (Include photo numbers here or on a separate sheet.)  
 disturbed, adjacent to corn field

## SOIL

Sampling Point: 02-20200708-WL-03-3W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 4/1	90	7.5YR 6/6	10	C	PL	Clay Loam		
<div><div><b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)</div><div><input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)</div><div><b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)</div></div>									
<b>Restrictive Layer (if observed):</b>  Type: <u>Rock</u> Depth (inches): <u>6</u>							Hydric Soil Present? Yes <u>X</u> No <u>      </u>		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/8/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200708-WL-03-3U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Convex</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.111197</u>	Long: <u>-78.186072</u>
Soil Map Unit Name: <u>ApA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200708-WL-03-3U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 20%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 20%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 20%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Eclipta prostrata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Phragmites australis</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Solidago altissima</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">95 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 20%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">5 = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200708-WL-03-3U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 3/3	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b> <div> Type: Dense _____  Depth (inches): 6 _____ </div>							Hydric Soil Present?    Yes _____ No <u>X</u> _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/9/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200709-WL-04-4W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 0  
Subregion (LRR or MLRA): LRR L Lat: 43.115088 Long: -78.177836 Datum: NAD83  
Soil Map Unit Name: LoA NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL60</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200709-WL-04-4W

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## SOIL

Sampling Point: 02-20200709-WL-04-4W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	10YR 3/1	95	10YR 3/3	5	C	PL	Silt Loam		
<div><div><b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)</div><div><input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)</div><div><b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)</div></div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genessee</u>	Sampling Date: <u>7/9/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200709-WL-04-4U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Convex</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.114920</u>	Long: <u>-78.177955</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200709-WL-04-4U

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Apocynum cannabinum</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Solidago gigantea</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Phytolacca americana</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>10</u></td> <td>x 2</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>15</u></td> <td>x 3</td> <td style="text-align: center;"><u>45</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>25</u></td> <td>x 4</td> <td style="text-align: center;"><u>100</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>40</u></td> <td>x 5</td> <td style="text-align: center;"><u>200</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>90</u></td> <td>(A)</td> <td style="text-align: center;"><u>365</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>4.06</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p>_____ 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: right;">Hydrophytic Vegetation Present? Yes _____ No <u>X</u></p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>10</u>	x 2	<u>20</u>	FAC species	<u>15</u>	x 3	<u>45</u>	FACU species	<u>25</u>	x 4	<u>100</u>	UPL species	<u>40</u>	x 5	<u>200</u>	Column Totals	<u>90</u>	(A)	<u>365</u> (B)	Prevalence Index = B/A =			<u>4.06</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200709-WL-04-4U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-8	10YR 3/4	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b> <div> Type: <u>Rock</u> </div> <div> Depth (inches): <u>8</u> </div>								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 7/9/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200709-WL-05-5W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.115404 Long: -78.174823 Datum: NAD83  
Soil Map Unit Name: HIB NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL61</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
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<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200709-WL-05-SW

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200709-WL-05-5W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 3/2	100					Silt Loam	
6-18	10YR 4/1	60	10YR 4/6	40	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/9/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200709-WL-05-5U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.115337</u>	Long: <u>-78.174780</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200709-WL-05-5U

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	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																						
		= Total Cover																																																																																																							
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																						
<u>Oxalis stricta</u>	20	X	FACU																																																																																																						
<u>Leucanthemum vulgare</u>	15	X	UPL																																																																																																						
<u>Sonchus asper</u>	10		FACU																																																																																																						
<u>Solidago canadensis</u>	10		FACU																																																																																																						
<u>Phalaris arundinacea</u>	5		FACW																																																																																																						
<u>Phleum pratense</u>	5		FACU																																																																																																						
<u>Boehmeria cylindrica</u>	2		OBL																																																																																																						
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<u>Vitis riparia</u>	10	X	FAC																																																																																																						
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OBL species	<u>2</u>	x 1	<u>2</u>																																																																																																						
FACW species	<u>5</u>	x 2	<u>10</u>																																																																																																						
FAC species	<u>50</u>	x 3	<u>150</u>																																																																																																						
FACU species	<u>75</u>	x 4	<u>300</u>																																																																																																						
UPL species	<u>15</u>	x 5	<u>75</u>																																																																																																						
Column Totals	<u>147</u>	(A)	<u>537</u> (B)																																																																																																						
Prevalence Index = B/A =			<u>3.65</u>																																																																																																						

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point:02-20200709-WL-05-5U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 3/3	100					Silt Loam	
6-12	10YR 5/6	70	10YR 3/3	30	C	M	Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/9/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200709-WL-06-6W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.115603 Long: -78.174301 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL62</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>  X  </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Wetland-WL62**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">5</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Impatiens capensis</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Reynoutria japonica</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Persicaria virginiana</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Leucanthemum vulgare</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td></td> <td style="text-align: center;">37</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">45</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	40	X	FACW	<u>Populus deltoides</u>	30	X	FAC		70	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Lonicera tatarica</u>	5	X	FACU		5	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Impatiens capensis</u>	20	X	FACW	<u>Reynoutria japonica</u>	5		FACU	<u>Toxicodendron radicans</u>	5		FAC	<u>Persicaria virginiana</u>	5		FAC	<u>Leucanthemum vulgare</u>	2		UPL		37	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Vitis riparia</u>	25	X	FAC	<u>Parthenocissus quinquefolia</u>	20	X	FACU		45	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)                      Total Number of Dominant Species Across All Strata: <u>6</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>60</u></td> <td>x 2</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>65</u></td> <td>x 3</td> <td style="text-align: center;"><u>195</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>30</u></td> <td>x 4</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>2</u></td> <td>x 5</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>157</u></td> <td>(A)</td> <td style="text-align: center;"><u>445</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.83</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td style="text-align: center;"><u>  </u></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td style="text-align: center;"><u>  </u></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>  </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>60</u>	x 2	<u>120</u>	FAC species	<u>65</u>	x 3	<u>195</u>	FACU species	<u>30</u>	x 4	<u>120</u>	UPL species	<u>2</u>	x 5	<u>10</u>	Column Totals	<u>157</u>	(A)	<u>445</u> (B)	Prevalence Index = B/A =			<u>2.83</u>		1- Rapid Test For Hydrophytic Vegetation	<u>X</u>	2- Dominance Test is > 50%	<u>X</u>	3- Prevalence Index is =< 3.0	<u>  </u>	4- Morphological Adaptations	<u>  </u>	5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: **Wetland-WL62**

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 2/2	100						Clay	
8-14	10YR 4/2	90	2.5YR 5/6	10	C	PL		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/9/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200709-WL-06-6U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.115720</u>	Long: <u>-78.173633</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
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<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
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Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200709-WL-06-6U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200709-WL-06-6U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 4/4	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b> <div> Type: Dense _____  Depth (inches): 6 _____ </div>							Hydric Soil Present?    Yes _____ No <u>X</u> _____	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/10/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200710-WL-07-7W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.116131 Long: -78.173112 Datum: NAD83  
 Soil Map Unit Name: LoA NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL63</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	<u>X</u> Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Other (Explain in Remarks)	<u>      </u> FAC-Neutral Test (D5)
<u>X</u> Sparsley Vegetated Concave Surface (B8)	

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Wetland-WL63**

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X	1- Rapid Test For Hydrophytic Vegetation																																																																																																										
X	2- Dominance Test is > 50%																																																																																																										
X	3- Prevalence Index is =< 3.0																																																																																																										
	4- Morphological Adaptations																																																																																																										
	5- Problematic Hydrophytic Vegetation																																																																																																										

Remarks: (Include photo numbers here or on a separate sheet.)  
 Sisymbrium officinale was also on notes, herb, 5% cover, not listed in drop down

## SOIL

Sampling Point: **Wetland-WL63**

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
4-14	2.5Y 3/2	60	10YR 2/1	40	C	M	Silt Loam	
0-4	2.5Y 3/3	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/10/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200710-WL-07-7U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.116116</u>	Long: <u>-78.173009</u>
Soil Map Unit Name: <u>LoA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200710-WL-07-7U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td><u>Zea mays</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Leersia oryzoides</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">65 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status	<u>Zea mays</u>	60	X	UPL	<u>Leersia oryzoides</u>	5		OBL		65 = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover			<div> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)                 </div> <hr/> <div> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>5</u></td> <td>x 1</td> <td style="text-align: center;"><u>5</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>60</u></td> <td>x 5</td> <td style="text-align: center;"><u>300</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>65</u></td> <td>(A)</td> <td style="text-align: center;"><u>305</u> (B)</td> </tr> </table>                     Prevalence Index = B/A = <u>4.69</u> </div> <hr/> <div> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <hr/> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <hr/> <div style="text-align: right;">                     Hydrophytic Vegetation Present? Yes _____ No <u>X</u> </div>	OBL species	<u>5</u>	x 1	<u>5</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>60</u>	x 5	<u>300</u>	Column Totals	<u>65</u>	(A)	<u>305</u> (B)
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200710-WL-07-7U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/3	90	10YR 3/6	10	C	PL	Clay		
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>X</u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/10/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200710-08-8W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.164066 Long: -78.164066 Datum: NAD83  
Soil Map Unit Name: Ld NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL64</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
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<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Wetland-WL64**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Tilia americana</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td>FACU</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td>FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">100</td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Tilia americana</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td>FACU</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td>FACW</td> </tr> <tr> <td><u>Lindera benzoin</u></td> <td style="text-align: center;">10</td> <td></td> <td>FACW</td> </tr> <tr> <td><u>Alnus glutinosa</u></td> <td style="text-align: center;">10</td> <td></td> <td>FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lindera benzoin</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td>FACW</td> </tr> <tr> <td><u>Carex disperma</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td>OBL</td> </tr> <tr> <td><u>Carex grayi</u></td> <td style="text-align: center;">15</td> <td></td> <td>FACW</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">10</td> <td></td> <td>FACU</td> </tr> <tr> <td><u>Geranium robertianum</u></td> <td style="text-align: center;">10</td> <td></td> <td>FACU</td> </tr> <tr> <td><u>Geum canadense</u></td> <td style="text-align: center;">5</td> <td></td> <td>FAC</td> </tr> <tr> <td><u>Polystichum acrostichoides</u></td> <td style="text-align: center;">2</td> <td></td> <td>FACU</td> </tr> <tr> <td><u>Oxalis corniculata</u></td> <td style="text-align: center;">2</td> <td></td> <td>FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">94</td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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(7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> </div>	OBL species	<u>20</u>	x 1	<u>20</u>	FACW species	<u>125</u>	x 2	<u>250</u>	FAC species	<u>5</u>	x 3	<u>15</u>	FACU species	<u>114</u>	x 4	<u>456</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>264</u>	(A)	<u>741</u> (B)	Prevalence Index = B/A =			<u>2.81</u>
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## SOIL

Sampling Point: **Wetland-WL64**

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 4/2	100						Sandy Loam	
4-16	2.5Y 6/2	95	2.5Y 6/8	5	C	PL		Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/10/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200710-WL-08-8U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.109463</u>	Long: <u>-78.163958</u>
Soil Map Unit Name: <u>Ld</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200710-WL-08-8U

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Indicator Status	<u>Fraxinus pennsylvanica</u>	30	X	FACW		30	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						_____ = Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Daucus carota</u>	30	X	UPL	<u>Lindera benzoin</u>	20	X	FACW	<u>Solidago canadensis</u>	20	X	FACU	<u>Phragmites australis</u>	10		FACW	<u>Oxalis corniculata</u>	10		FACU	<u>Toxicodendron radicans</u>	5		FAC		95	= Total Cover			Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)  
 Daucus carota = Glycine max, Glycine max not included on list

## SOIL

Sampling Point: 02-20200710-WL-08-8U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/2	98	10YR 5/6	2	C	PL	Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/10/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200710-WL-09-9W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.105503 Long: -78.175703 Datum: NAD83  
Soil Map Unit Name: Wk NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL65</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 0  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Wetland-WL65**

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">80</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Leersia oryzoides</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Euthamia graminifolia</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Cirsium arvense</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Leucanthemum vulgare</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ <u>137</u> = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ <u>15</u> = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: **Wetland-WL65**

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-10	10YR 4/1	90	5YR 4/6	10	C	PL	Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/10/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200710-WL-09-9U  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.105519 Long: -78.175663 Datum: NAD83  
Soil Map Unit Name: Wk NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
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<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>  X  </u>
Water Table Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200710-WL-09-9U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200710-WL-09-9U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	10YR 3/3	95	5YR 5/6	5	C	PL	Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: Dense _____ Depth (inches): 3 _____							Hydric Soil Present?    Yes _____ No <u>X</u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/10/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: 02-20200710-  
 Investigator(s): Justin Ahn Section, Township, Range: WL-10-10W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.105086 Long: -78.166815 Datum: NAD83  
 Soil Map Unit Name: ApA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (if no, explain in Remarks.)  
 Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> if yes, optional Wetland Site ID: <u>WL66</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes        No X Depth (inches)         
 Water Table Present? Yes        No X Depth (inches)         
 Saturation Present? Yes        No X Depth (inches)       

Wetland Hydrology Present? Yes X No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **Wetland-WL66**

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Yes <u>X</u> No _____                 </div>	OBL species	<u>30</u>	x 1	<u>30</u>	FACW species	<u>165</u>	x 2	<u>330</u>	FAC species	<u>27</u>	x 3	<u>81</u>	FACU species	<u>2</u>	x 4	<u>8</u>	UPL species	<u>5</u>	x 5	<u>25</u>	Column Totals	<u>229</u>	(A)	<u>474</u> (B)	Prevalence Index = B/A =			<u>2.07</u>	<u>X</u>	1- Rapid Test For Hydrophytic Vegetation	<u>X</u>	2- Dominance Test is > 50%	<u>X</u>	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: **Wetland-WL66**

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 5/2	95	5YR 5/6	5	C	PL	Silt Loam		
10-18	10YR 7/4	70	10YR 6/8	30	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/10/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200710-WL-10-11W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.104958 Long: -78.166816 Datum: NAD83  
 Soil Map Unit Name: ApA NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL66</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200710-WL-10-11W

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Carex disperma</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Apocynum cannabinum</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Carex alopecoidea</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200710-WL-10-11W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-12	10YR 3/1	90	10YR 3/6	10	C	PL	Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/10/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200710-WL-10-10U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.105308</u>	Long: <u>-78.167014</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200710-WL-10-10U

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharinum</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">60</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Euthamia graminifolia</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Leucanthemum vulgare</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">120</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200710-WL-10-10U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	2.5Y 5/4	100					Silt Loam	
6-12	2.5Y 5/4	60	2.5Y 6/4	40	C	M	Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/10/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200710-WL-10-11U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.104977</u>	Long: <u>-78.167117</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

In powerline easement

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?    Yes _____ No <u>  X  </u> Depth (inches) _____ Water Table Present?    Yes _____ No <u>  X  </u> Depth (inches) _____ Saturation Present?    Yes _____ No <u>  X  </u> Depth (inches) _____	Wetland Hydrology Present?    Yes _____ No <u>  X  </u>
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Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200710-WL-10-11U

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	Absolute % Cover	Dominant Species?	Indicator Status																																																																																										
<u>Apocynum cannabinum</u>	50	X	FAC																																																																																										
<u>Phalaris arundinacea</u>	10		FACW																																																																																										
<u>Leucanthemum vulgare</u>	5		UPL																																																																																										
<u>Toxicodendron radicans</u>	5		FAC																																																																																										
<u>Asclepias syriaca</u>	2		UPL																																																																																										
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_____	_____	_____	_____																																																																																										
_____ = Total Cover																																																																																													
OBL species	<u>0</u>	x 1	<u>0</u>																																																																																										
FACW species	<u>10</u>	x 2	<u>20</u>																																																																																										
FAC species	<u>55</u>	x 3	<u>165</u>																																																																																										
FACU species	<u>10</u>	x 4	<u>40</u>																																																																																										
UPL species	<u>7</u>	x 5	<u>35</u>																																																																																										
Column Totals	<u>82</u>	(A)	<u>260</u> (B)																																																																																										
Prevalence Index = B/A =			<u>3.17</u>																																																																																										

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200710-WL-10-11U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/2	100						Silt Loam	
12-16	10YR 3/2	60	10YR 5/6	40	C	M		Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/13/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200713-WL-12-12W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.106931 Long: -78.184104 Datum: NAD83  
Soil Map Unit Name: OvA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL67</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>  X  </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>  X  </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200713-WL-12-12W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cyperus esculentus</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cyperus odoratus</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Carex intumescens</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">30</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Amaranthus retroflexus</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ 170 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Cyperus esculentus</u>	50	X	FACW	<u>Cyperus odoratus</u>	40	X	OBL	<u>Carex intumescens</u>	40	X	FACW	<u>Abutilon theophrasti</u>	30		FACU	<u>Amaranthus retroflexus</u>	10		FACU	_____ 170 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>3</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>40</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>90</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>180</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>40</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>160</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>170</u> (A)</td> <td></td> <td style="text-align: center;"><u>380</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.24</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">X</td> <td style="width: 95%;">1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>40</u>	x 1	<u>40</u>	FACW species	<u>90</u>	x 2	<u>180</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>40</u>	x 4	<u>160</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>170</u> (A)		<u>380</u> (B)	Prevalence Index = B/A =			<u>2.24</u>	X	1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200713-WL-12-12W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 3/1	100					Clay	
6-16	10YR 5/2	80	7.5YR 5/6	20	C	M	Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/13/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200713-WL-12-12U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.106779</u>	Long: <u>-78.184255</u>
Soil Map Unit Name: <u>La</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200713-WL-12-12U

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rhamnus cathartica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Rubus allegheniensis</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">60 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Polypogon viridis</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">60 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">35</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">45 = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200713-WL-12-12U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-4	10YR 3/2	100					Silty Clay Loam	
4-16	10YR 5/3	90	10YR 6/4	10	C	PL	Sandy Clay Loam	
16-20	10YR 5/1	90	7.5YR 5/6	10	C	PL	Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/16/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200716-WL-26-26W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.098775 Long: -78.179059 Datum: NAD83  
Soil Map Unit Name: ApA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL68</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200716-WL-26-26W

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Prevalence Index = B/A = <u>2.12</u>																																																																																																											
	1- Rapid Test For Hydrophytic Vegetation																																																																																																										
X	2- Dominance Test is > 50%																																																																																																										
X	3- Prevalence Index is =< 3.0																																																																																																										
	4- Morphological Adaptations																																																																																																										
	5- Problematic Hydrophytic Vegetation																																																																																																										

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200716-WL-26-26W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-14	10YR 4/2	90	7.5YR 4/6	10	C	PL	Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/17/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200717-WL-26-26U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.098786</u>	Long: <u>-78.178993</u>
Soil Map Unit Name: <u>ApA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200717-WL-26-26U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Apocynum cannabinum</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Euthamia graminifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Geum aleppicum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Agrostis gigantea</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">80 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>5</u></td> <td>x 2</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>35</u></td> <td>x 3</td> <td style="text-align: center;"><u>105</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>30</u></td> <td>x 4</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>10</u></td> <td>x 5</td> <td style="text-align: center;"><u>50</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>80</u></td> <td>(A)</td> <td style="text-align: center;"><u>285</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.56</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>1</u>- Rapid Test For Hydrophytic Vegetation  <u>2</u>- Dominance Test is &gt; 50%  <u>3</u>- Prevalence Index is =&lt; 3.0  <u>4</u>- Morphological Adaptations  <u>5</u>- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes _____ No <u>X</u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>5</u>	x 2	<u>10</u>	FAC species	<u>35</u>	x 3	<u>105</u>	FACU species	<u>30</u>	x 4	<u>120</u>	UPL species	<u>10</u>	x 5	<u>50</u>	Column Totals	<u>80</u>	(A)	<u>285</u> (B)	Prevalence Index = B/A =			<u>3.56</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200717-WL-26-26U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	10YR 3/3	98	7.5YR 4/6	2	C	PL	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/13/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200713-WL-14-14W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.103305 Long: -78.188157 Datum: NAD83  
Soil Map Unit Name: OnB NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL69</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
<u>X</u> Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200713-WL-14-14W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">50</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Rhamnus cathartica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">60</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Microstegium vimineum</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">115</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">15</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Vitis riparia</u>	10	X	FAC	<u>Parthenocissus quinquefolia</u>	5	X	FACU		15	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)                      Total Number of Dominant Species Across All Strata: <u>8</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>87.5%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>115</u></td> <td>x 2</td> <td style="text-align: center;"><u>230</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>110</u></td> <td>x 3</td> <td style="text-align: center;"><u>330</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>15</u></td> <td>x 4</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>240</u></td> <td>(A)</td> <td style="text-align: center;"><u>620</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.58</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>    </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>X</u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>X</u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>    </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>    </u> 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200713-WL-14-14W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 3/2	90	7.5YR 5/8	10	C	PL	Silt Loam		
6-18	10YR 4/3	60	10YR 6/8	40	C	M	Silt Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/13/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200713-WL-14-14U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.103208</u>	Long: <u>-78.188256</u>
Soil Map Unit Name: <u>OnB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>  X  </u>
Water Table Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200713-WL-14-14U

Tree Stratum	(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Populus deltoides</u>		40	X	FAC
		40	= Total Cover	

Shrub Stratum	(Plot Size: 15'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Rubus argutus</u>		30	X	FACU
<u>Fraxinus pennsylvanica</u>		20	X	FACW
		50	= Total Cover	

Herb Stratum	(Plot Size: 5'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Solidago canadensis</u>		10	X	FACU
<u>Fraxinus pennsylvanica</u>		10	X	FACW
		20	= Total Cover	

Woody Vine Stratum	(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus quinquefolia</u>		30	X	FACU
<u>Vitis riparia</u>		15	X	FAC
		45	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant  
 Species Across All Strata: 7 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 57.1% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0  
 FACW species 30 x 2 60  
 FAC species 55 x 3 165  
 FACU species 70 x 4 280  
 UPL species 0 x 5 0  
 Column Totals 155 (A) 505 (B)  
 Prevalence Index = B/A = 3.26

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200713-WL-14-14U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 3/3	95	10YR 4/6	5	C	PL	Sandy Loam		
6-16	10YR 5/3	95	10YR 4/6	5	C	PL	Sand		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/14/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200714-WL-15-15W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.103305 Long: -78.188146 Datum: NAD83  
Soil Map Unit Name: Wk NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL70</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200714-WL-15-15W

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)
_____ = Total Cover				<b>Prevalence Index Worksheet:</b> OBL species <u>30</u> x 1 <u>30</u> FACW species <u>50</u> x 2 <u>100</u> FAC species <u>5</u> x 3 <u>15</u> FACU species <u>60</u> x 4 <u>240</u> UPL species <u>30</u> x 5 <u>150</u> Column Totals <u>175</u> (A) <u>535</u> (B) Prevalence Index = B/A = <u>3.06</u>
<b>Shrub Stratum</b> (Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> _____ 1- Rapid Test For Hydrophytic Vegetation X _____ 2- Dominance Test is > 50% _____ 3- Prevalence Index is =< 3.0 _____ 4- Morphological Adaptations _____ 5- Problematic Hydrophytic Vegetation
_____ = Total Cover				<b>Definitions of Vegetation Strata:</b> Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall. Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall. Woody Vines- All woody vines greater than 3.28ft in height.
<b>Herb Stratum</b> (Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation</b> Present? Yes <u>X</u> No _____
<u>Mentha spicata</u> 30 X FACW <u>Asclepias incarnata</u> 30 X OBL <u>Leucanthemum vulgare</u> 20 X UPL <u>Alliaria petiolata</u> 20 X FACU <u>Solidago gigantea</u> 20 X FACW <u>Dactylis glomerata</u> 15 FACU <u>Cichorium intybus</u> 15 FACU <u>Cirsium arvense</u> 5 FACU <u>Cirsium vulgare</u> 5 FACU <u>Artemisia vulgaris</u> 5 UPL <u>Daucus carota</u> 5 UPL <u>Rumex crispus</u> 5 FAC				
_____ = Total Cover				
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
_____ = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200714-WL-15-15W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	2.5Y 4/3	90	7.5YR 4/6	10	C	PL	Silty Clay Loam		
4-20	2.5Y 4/2	60	10YR 5/4	40	C	M	Silty Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/14/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: 02-20200714-  
 Investigator(s): Justin Ahn Section, Township, Range: WL-15-15U  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.095836 Long: -78.185447 Datum: NAD83  
 Soil Map Unit Name: Wk NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/> X
Hydric Soil Present?	Yes	<input checked="" type="checkbox"/> X	No	<input type="checkbox"/>
Wetland Hydrology Present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/> X

**Is the Sampled Area within a Wetland?**

Yes ☐ No ☒ X

if yes, optional Wetland Site ID: \_\_\_\_\_

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____

Wetland Hydrology Present?    Yes            No    X

eID: 20200730073540

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200714-WL-15-15U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Zea mays</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Asclepias syriaca</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Leucanthemum vulgare</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Rumex crispus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">140 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>45</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>180</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>90</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>450</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>140</u> (A)</td> <td></td> <td style="text-align: center;"><u>645</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>4.61</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>1-</u> Rapid Test For Hydrophytic Vegetation  <u>2-</u> Dominance Test is &gt; 50%  <u>3-</u> Prevalence Index is =&lt; 3.0  <u>4-</u> Morphological Adaptations  <u>5-</u> Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200714-WL-15-15U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-10	10YR 4/2	95	7.5YR 5/8	5	C	PL	Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input checked="" type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: Rock _____ Depth (inches): 10 _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/14/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200714-WL-16-16W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.103576 Long: -78.164104 Datum: NAD83  
 Soil Map Unit Name: ApA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL71</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		<u>X</u> Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 5  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200714-WL-16-16W

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(7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> </div> <div style="text-align: center; margin-top: 20px;">                 Hydrophytic Vegetation Present? Yes <u>X</u> No <u>  </u> </div>	OBL species	<u>10</u>	x 1	<u>10</u>	FACW species	<u>17</u>	x 2	<u>34</u>	FAC species	<u>65</u>	x 3	<u>195</u>	FACU species	<u>55</u>	x 4	<u>220</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>147</u> (A)		<u>459</u> (B)	Prevalence Index = B/A =			<u>3.12</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200714-WL-16-16W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-14	10YR 2/1	95	7.5YR 4/6	5	C	PL	Silty Clay Loam	
14-20	10YR 5/4	100					Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/14/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200714-</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range: _____	<u>WL-16-16U</u>
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.103463</u>	Long: <u>-78.164127</u>
Soil Map Unit Name: <u>ApA</u>	Datum: <u>NAD83</u>	
	NWI Classification: <u>UPL</u>	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

Wetland Hydrology Present?    Yes            No    X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Form adapted from US Army Corp of Engineers - Northcentral and Northeast Region - Wetlands Determination Form - version 2.0

eID: 20200730075843

**VEGETATION - Use scientific names of plants**

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: **Upland-WL71**

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-10	10YR 4/3	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>								
<b>Restrictive Layer (if observed):</b>  <div> Type: <u>Rock</u>  Depth (inches): <u>10</u> </div>							Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/14/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200714-WL-17-17W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.100398 Long: -78.157093 Datum: NAD83  
 Soil Map Unit Name: OnB NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL72</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	Drainage Patterns (B10)
_____ High Water Table (A2)	Moss Trim Lines (B16)
_____ Saturation (A3)	Dry-Season Water Table (C2)
_____ Water Marks (B1)	<u>X</u> Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)	_____ FAC-Neutral Test (D5)

Surface Water Present? Yes <u>X</u> No _____ Depth (inches) <u>2</u>	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200714-WL-17-17W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rhamnus cathartica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">50</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Polygonum aviculare</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Alisma subcordatum</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Carex intumescens</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Iris versicolor</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Impatiens capensis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">105</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200714-WL-17-17W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 4/2	100						Silty Clay Loam	
4-20	10YR 4/2	80	2.5Y 3/6	20	C	M		Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input checked="" type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/14/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200714-WL-17-17U  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.100520 Long: -78.157136 Datum: NAD83  
Soil Map Unit Name: OnB NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)	____ FAC-Neutral Test (D5)
____ Water-Stained Leaves (B9)	
____ Aquatic Fauna (B13)	
____ Marl Deposits (B15)	
____ Hydrogen Sulfide Odor (C1)	
____ Oxidized Rhizospheres on Living Roots (C3)	
____ Presence of Reduced Iron (C4)	
____ Recent Iron Reduction in Tilled Soils (C6)	
____ Thin Muck Surface (C7)	
____ Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200714-WL-17-17U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Juglans nigra</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">60</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">25</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Zea mays</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Symphoricarpos orbiculatus</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Allium vineale</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Polygonum aviculare</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">100</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Vitis riparia</u>	10	X	FAC		10	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>7</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>42.9%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>20</u></td> <td>x 2</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>30</u></td> <td>x 3</td> <td style="text-align: center;"><u>90</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>115</u></td> <td>x 4</td> <td style="text-align: center;"><u>460</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>30</u></td> <td>x 5</td> <td style="text-align: center;"><u>150</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>195</u></td> <td>(A)</td> <td style="text-align: center;"><u>740</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.79</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>        </u> No <u>  X  </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>20</u>	x 2	<u>40</u>	FAC species	<u>30</u>	x 3	<u>90</u>	FACU species	<u>115</u>	x 4	<u>460</u>	UPL species	<u>30</u>	x 5	<u>150</u>	Column Totals	<u>195</u>	(A)	<u>740</u> (B)	Prevalence Index = B/A =			<u>3.79</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200714-WL-17-17U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-8	10YR 4/3	100					Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: Gravel Fill Depth (inches): 8							Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/15/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200715-WL-18-18W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.100407 Long: -78.157104 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL73</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
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<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200715-WL-18-18W

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(7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <hr/> <div style="text-align: center;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>5</u>	x 1	<u>5</u>	FACW species	<u>145</u>	x 2	<u>290</u>	FAC species	<u>65</u>	x 3	<u>195</u>	FACU species	<u>105</u>	x 4	<u>420</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>320</u>	(A)	<u>910</u> (B)	Prevalence Index = B/A =			<u>2.84</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200715-WL-18-18W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/2	90	7.5YR 4/6	10	C	PL	Silt Loam		
12-20	2.5Y 6/4	80	2.5Y 6/8	20	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/15/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200715-WL-19-19W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.094959 Long: -78.175383 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL73</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	<u>X</u> Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 18  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200715-WL-19-19W

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200715-WL-19-19W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 4/2	90	5YR 4/6	10	C	PL	Clay		
10-20	7.5YR 7/4	60	7.5YR 6/8	40	C	M	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/16/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200716-WL-22-22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.089952 Long: -78.176469 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL73</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	Drainage Patterns (B10)
_____ Water-Stained Leaves (B9)	Moss Trim Lines (B16)
_____ High Water Table (A2)	Dry-Season Water Table (C2)
_____ Saturation (A3)	Crayfish Burrows (C8)
_____ Water Marks (B1)	Saturation Visible in Aerial Imagery (C9)
_____ Sediment Deposits (B2)	Stunted or Stressed Plants (D1)
_____ Drift Deposits (B3)	Geomorphic Position (D2)
_____ Algal Mat or Crust (B4)	Shallow Aquitard (D3)
_____ Iron Deposits (B5)	Microtopographic Relief (D4)
_____ Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
<u>X</u> Sparsley Vegetated Concave Surface (B8)	
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

Surface Water Present? Yes <u>X</u> No _____ Depth (inches) <u>2</u>	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200716-WL-22-22W

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OBL species	<u>30</u>	x 1	<u>30</u>																																																																																										
FACW species	<u>50</u>	x 2	<u>100</u>																																																																																										
FAC species	<u>0</u>	x 3	<u>0</u>																																																																																										
FACU species	<u>0</u>	x 4	<u>0</u>																																																																																										
UPL species	<u>0</u>	x 5	<u>0</u>																																																																																										
Column Totals	<u>80</u>	(A)	<u>130</u> (B)																																																																																										
Prevalence Index = B/A =			<u>1.62</u>																																																																																										

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200716-WL-22-22W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 3/2	90	7.5YR 5/6	10	C	PL	Clay		
10-20	2.5Y 5/2	90	7.5YR 7/4	10	C	PL	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/15/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200715-WL-18-18U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.094888</u>	Long: <u>-78.175702</u>
Soil Map Unit Name: <u>CaA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No _____	X _____
Hydric Soil Present?	Yes _____	No _____	X _____
Wetland Hydrology Present?	Yes _____	No _____	X _____

**Is the Sampled Area within a Wetland?**

Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_

if yes, optional Wetland Site ID: \_\_\_\_\_

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200715-WL-18-18U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Quercus alba</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rubus allegheniensis</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Oxalis corniculata</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Impatiens capensis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">35</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Quercus alba</u>	40	X	FACU		40	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Rubus allegheniensis</u>	20	X	FACU	<u>Cornus racemosa</u>	20	X	FAC		40	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Toxicodendron radicans</u>	20	X	FAC	<u>Oxalis corniculata</u>	5		FACU	<u>Impatiens capensis</u>	5		FACW		30	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Vitis riparia</u>	20	X	FAC	<u>Parthenocissus quinquefolia</u>	15	X	FACU		35	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>6</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>5</u></td> <td>x 2</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>60</u></td> <td>x 3</td> <td style="text-align: center;"><u>180</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>80</u></td> <td>x 4</td> <td style="text-align: center;"><u>320</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>145</u></td> <td>(A)</td> <td style="text-align: center;"><u>510</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.52</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>        </u> No <u>  X  </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>5</u>	x 2	<u>10</u>	FAC species	<u>60</u>	x 3	<u>180</u>	FACU species	<u>80</u>	x 4	<u>320</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>145</u>	(A)	<u>510</u> (B)	Prevalence Index = B/A =			<u>3.52</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200715-WL-18-18U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-16	10YR 4/3	100						Clay	
16-20	2.5Y 7/3	85	2.5Y 6/8	15	C	PL		Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/16/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200715-WL-19-19U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.094884</u>	Long: <u>-78.175711</u>
Soil Map Unit Name: <u>CaA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
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<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
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<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>  X  </u>
Water Table Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200715-WL-19-19U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200715-WL-19-19U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	10YR 4/3	95	7.5YR 5/6	5	C	PL	Sandy Clay Loam		
<div><div><b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)</div><div><input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)</div><div><b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)</div></div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/15/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200716-WL-22-22U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.100398</u>	Long: <u>-78.157093</u>
Soil Map Unit Name: <u>CaA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>  X  </u>
Water Table Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200716-WL-22-22U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200716-WL-22-22U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-18	10YR 3/6	100					Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/15/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200715-WL-20-20W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.094042 Long: -78.177959 Datum: NAD83  
Soil Map Unit Name: OvB NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL74</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>X</u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200715-WL-20-20W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Salix alba</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">50</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Salix alba</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phragmites australis</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Reynoutria japonica</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Salix alba</u>	50	X	FACW		50	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	20	X	FACW	<u>Salix alba</u>	10	X	FACW		30	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Phragmites australis</u>	30	X	FACW	<u>Reynoutria japonica</u>	25	X	FACU	<u>Typha angustifolia</u>	15	X	OBL		70	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Parthenocissus quinquefolia</u>	30	X	FACU	<u>Vitis riparia</u>	10	X	FAC		40	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)                      Total Number of Dominant Species Across All Strata: <u>8</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>110</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>220</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>55</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>220</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>190</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>485</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.55</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td style="width: 95%;">1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td style="text-align: center;"></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td style="text-align: center;"></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>15</u>	x 1	<u>15</u>	FACW species	<u>110</u>	x 2	<u>220</u>	FAC species	<u>10</u>	x 3	<u>30</u>	FACU species	<u>55</u>	x 4	<u>220</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>190</u>	(A)	<u>485</u> (B)	Prevalence Index = B/A =			<u>2.55</u>		1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200715-WL-20-20W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 3/2	90	5YR 4/6	10	C	PL	Silty Clay Loam		
4-20	10YR 5/4	90	7.5YR 6/8	10	C	PL	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/15/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200715-</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range: _____	<u>WL-20-20U</u>
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.094105</u>	Long: <u>-78.177897</u>
Soil Map Unit Name: <u>OvB</u>	Datum: <u>NAD83</u>	
	NWI Classification: <u>UPL</u>	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
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<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____

Wetland Hydrology Present?    Yes            No    X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Form adapted from US Army Corp of Engineers - Northcentral and Northeast Region - Wetlands Determination Form - version 2.0

eID: 20200730102536

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200715-WL-20-20U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200715-WL-20-20U

[illegible]

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/15/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200715-WL-21-21W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.094368 Long: -78.179752 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL75</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200715-WL-21-21W

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200715-WL-21-21W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-16	10YR 5/4	90	7.5YR 6/8	10	C	PL	Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input checked="" type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/15/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200715-  
Investigator(s): Justin Ahn Section, Township, Range: WL-21-21U  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.094302 Long: -78.179652 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200715-WL-21-21U

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Zea mays</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Persicaria virginiana</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Impatiens capensis</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Vitis riparia</u>	15	X	FAC	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>6</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.3%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>45</u></td> <td>x 2</td> <td style="text-align: center;"><u>90</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>45</u></td> <td>x 3</td> <td style="text-align: center;"><u>135</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>30</u></td> <td>x 5</td> <td style="text-align: center;"><u>150</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>120</u> (A)</td> <td></td> <td style="text-align: center;"><u>375</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>3.12</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: right;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>45</u>	x 2	<u>90</u>	FAC species	<u>45</u>	x 3	<u>135</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>30</u>	x 5	<u>150</u>	Column Totals	<u>120</u> (A)		<u>375</u> (B)	Prevalence Index = B/A = <u>3.12</u>			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200715-WL-21-21U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-16	10YR 5/4	95	7.5YR 6/8	5	C	PL	Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/16/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200716-WL-23-23W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.091781 Long: -78.179274 Datum: NAD83  
Soil Map Unit Name: HIA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL76</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200716-WL-23-23W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Asclepias incarnata</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td><u>Typha angustifolia</u></td><td style="text-align: center;">30</td><td style="text-align: center;">X</td><td style="text-align: center;">OBL</td></tr> <tr><td><u>Leersia oryzoides</u></td><td style="text-align: center;">30</td><td style="text-align: center;">X</td><td style="text-align: center;">OBL</td></tr> <tr><td><u>Ambrosia artemisiifolia</u></td><td style="text-align: center;">15</td><td></td><td style="text-align: center;">FACU</td></tr> <tr><td><u>Solidago gigantea</u></td><td style="text-align: center;">15</td><td></td><td style="text-align: center;">FACW</td></tr> <tr><td><u>Alliaria petiolata</u></td><td style="text-align: center;">5</td><td></td><td style="text-align: center;">FACU</td></tr> <tr><td><u>Rumex crispus</u></td><td style="text-align: center;">5</td><td></td><td style="text-align: center;">FAC</td></tr> <tr><td><u>Daucus carota</u></td><td style="text-align: center;">2</td><td></td><td style="text-align: center;">UPL</td></tr> <tr><td><u>Cirsium vulgare</u></td><td style="text-align: center;">2</td><td></td><td style="text-align: center;">FACU</td></tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200716-WL-23-23W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 4/4	95	7.5YR 6/8	5	C	PL	Silty Clay Loam		
6-18	10YR 5/1	60	7.5YR 6/8	40	C	M	Silty Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200716-WL-23-23U  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.091797 Long: -78.179326 Datum: NAD83  
Soil Map Unit Name: HIA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200716-WL-23-23U

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FACU species	<u>80</u>	x 4	<u>320</u>																																																																																										
UPL species	<u>0</u>	x 5	<u>0</u>																																																																																										
Column Totals	<u>90</u> (A)		<u>340</u> (B)																																																																																										
Prevalence Index = B/A = <u>3.78</u>																																																																																													
Remarks: (Include photo numbers here or on a separate sheet.)																																																																																													

## SOIL

Sampling Point: 02-20200716-WL-23-23U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/3	100						Silt Loam	
12-18	10YR 6/3	100						Silt Loam	
18-24	10YR 7/2	90	7.5YR 5/8	10	C	PL		Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/16/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200716-WL-24-24W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.094694 Long: -78.169038 Datum: NAD83  
 Soil Map Unit Name: ArB NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL77</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200716-WL-24-24W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Tilia americana</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">55</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Onoclea sensibilis</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Geum canadense</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Solidago gigantea</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">90</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Parthenocissus quinquefolia</u>	15	X	FACU	<u>Vitis riparia</u>	5	X	FAC		20	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)                      Total Number of Dominant Species Across All Strata: <u>7</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57.1%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>145</u></td> <td>x 2</td> <td style="text-align: center;"><u>290</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>20</u></td> <td>x 3</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>70</u></td> <td>x 4</td> <td style="text-align: center;"><u>280</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>235</u></td> <td>(A)</td> <td style="text-align: center;"><u>630</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.68</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>      </u> 1- Rapid Test For Hydrophytic Vegetation  <u>X</u> 2- Dominance Test is &gt; 50%  <u>X</u> 3- Prevalence Index is =&lt; 3.0  <u>      </u> 4- Morphological Adaptations  <u>      </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>145</u>	x 2	<u>290</u>	FAC species	<u>20</u>	x 3	<u>60</u>	FACU species	<u>70</u>	x 4	<u>280</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>235</u>	(A)	<u>630</u> (B)	Prevalence Index = B/A =			<u>2.68</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200716-WL-24-24W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-20	10YR 4/2	80	7.5YR 6/8	20	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input checked="" type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>									
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Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/16/2020  
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**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200716-WL-24-24U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200716-WL-24-24U

Depth (inches)	Matrix		Redox Features				Remarks	
	Color	%	Color	%	Type	Loc		Texture
0-20	10YR 4/6	100					Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/16/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200716-  
Investigator(s): Justin Ahn Section, Township, Range: WL-25-25W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.092095 Long: -78.169055 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> if yes, optional Wetland Site ID: <u>WL78</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>X</u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes        No X Depth (inches)       

Water Table Present? Yes        No X Depth (inches)       

Saturation Present? Yes        No X Depth (inches)       

Wetland Hydrology Present? Yes X No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200716-WL-25-25W

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200716-WL-25-25W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 2/2	100					Silt Loam	
6-18	2.5Y 6/2	80	7.5YR 6/8	20	C	M	Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/16/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200716-WL-25-25U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.092223</u>	Long: <u>-78.169096</u>
Soil Map Unit Name: <u>GnB</u>	Datum: <u>NAD83</u>	
	NWI Classification: <u>UPL</u>	

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200716-WL-25-25U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharum</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">50</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharum</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Menispermum canadense</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Allium tricoccum</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">75</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____						= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>5</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>130</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>520</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>155</u> (A)</td> <td></td> <td style="text-align: center;"><u>595</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.84</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>                      _____ 1- Rapid Test For Hydrophytic Vegetation                      _____ 2- Dominance Test is &gt; 50%                      _____ 3- Prevalence Index is =&lt; 3.0                      _____ 4- Morphological Adaptations                      _____ 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes _____ No <u>X</u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>25</u>	x 3	<u>75</u>	FACU species	<u>130</u>	x 4	<u>520</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>155</u> (A)		<u>595</u> (B)	Prevalence Index = B/A =			<u>3.84</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200716-WL-25-25U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-12	10YR 4/6	100					Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/30/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 01\_20200930\_WL112\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 3 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.109673 Long: -78.227402 Datum: NAD83  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL79</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 01\_20200930\_WL112\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: 30'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharinum</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Ulmus americana</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">95</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: 15'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td> </td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: 5'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cinna arundinacea</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Glyceria striata</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Mentha arvensis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Phragmites australis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Symphotrichum lateriflorum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Taraxacum officinale</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">53</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: 30'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">5</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: **Wetland-WL79**

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-5	10YR 2/1	95	10Y 3/6	5	C	PL	Silty Clay Loam		
5-8	10YR 3/1	90	10YR 4/6	10	C	M	Silty Clay Loam		
8-16	10YR 5/1	70	10YR 4/6	30	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Geneseee</u>	Sampling Date: <u>9/30/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>01_20200930_WL112_U1</u>
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: <u></u>	
Landform (hillslope, terrace, etc.): <u>Rise</u>	Local relief (concave, convex, none): <u>Convex</u>	Slope (%) <u>5 - 10</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.109684</u>	Long: <u>-78.227432</u>
Soil Map Unit Name: <u>Ma</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

Wetland Hydrology Present?    Yes            No    X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Form adapted from US Army Corp of Engineers - Northcentral and Northeast Region - Wetlands Determination Form - version 2.0

eID: 20201019115553

**VEGETATION - Use scientific names of plants**

Sampling Point: 01\_20200930\_WL112\_U1

<b>Tree Stratum</b>	(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Acer saccharinum</u>		50	X	FACW
<u>Ulmus americana</u>		20	X	FACW
		70	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: 15'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Lonicera morrowii</u>		40	X	FACU
<u>Tilia americana</u>		15	X	FACU
		55	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: 5'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Solidago canadensis</u>		10	X	FACU
<u>Symphotrichum lanceolatum</u>		10	X	FACW
<u>Symphotrichum lateriflorum</u>		10	X	FAC
<u>Circaea canadensis</u>		5		FACU
		35	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Toxicodendron radicans</u>		10	X	FAC
		10	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 5 (A)  
 Total Number of Dominant  
 Species Across All Strata: 8 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 62.5% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0  
 FACW species 80 x 2 160  
 FAC species 20 x 3 60  
 FACU species 70 x 4 280  
 UPL species 0 x 5 0  
 Column Totals 170 (A) 500 (B)  
 Prevalence Index = B/A = 2.94

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 01\_20200930\_WL112\_U1

Depth (inches)	Matrix		Redox Features				Remarks	
	Color	%	Color	%	Type	Loc		Texture
0-5	10YR 3/1	100					Sandy Loam	
5-16	10YR 3/2	100					Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b> <div> Type: Dense _____  Depth (inches): 16 _____ </div>							Hydric Soil Present?    Yes _____ No <u>X</u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/17/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200717-WL-27-27W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.092468 Long: -78.166319 Datum: NAD83  
Soil Map Unit Name: ArB NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL80</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
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_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200717-WL-27-27W

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																								
_____ _____ = Total Cover				<b>Prevalence Index Worksheet:</b> OBL species <u>80</u> x 1 <u>80</u> FACW species <u>40</u> x 2 <u>80</u> FAC species <u>0</u> x 3 <u>0</u> FACU species <u>30</u> x 4 <u>120</u> UPL species <u>0</u> x 5 <u>0</u> Column Totals <u>150</u> (A) <u>280</u> (B) Prevalence Index = B/A = <u>1.87</u>																																								
<b>Shrub Stratum</b> (Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status																																									
_____ _____ = Total Cover																																												
<b>Herb Stratum</b> (Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> X 1- Rapid Test For Hydrophytic Vegetation X 2- Dominance Test is > 50% X 3- Prevalence Index is =< 3.0 4- Morphological Adaptations 5- Problematic Hydrophytic Vegetation																																								
<table style="width: 100%; border-collapse: collapse;"> <tr><td><u>Leersia oryzoides</u></td><td style="text-align: center;"><u>60</u></td><td style="text-align: center;"><u>X</u></td><td style="text-align: center;"><u>OBL</u></td></tr> <tr><td><u>Cyperus strigosus</u></td><td style="text-align: center;"><u>30</u></td><td style="text-align: center;"><u>X</u></td><td style="text-align: center;"><u>FACW</u></td></tr> <tr><td><u>Typha angustifolia</u></td><td style="text-align: center;"><u>20</u></td><td></td><td style="text-align: center;"><u>OBL</u></td></tr> <tr><td><u>Galinsoga quadriradiata</u></td><td style="text-align: center;"><u>10</u></td><td></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td><u>Ambrosia artemisiifolia</u></td><td style="text-align: center;"><u>10</u></td><td></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td><u>Persicaria lapathifolia</u></td><td style="text-align: center;"><u>5</u></td><td></td><td style="text-align: center;"><u>FACW</u></td></tr> <tr><td><u>Chenopodium album</u></td><td style="text-align: center;"><u>5</u></td><td></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td><u>Agrostis gigantea</u></td><td style="text-align: center;"><u>5</u></td><td></td><td style="text-align: center;"><u>FACW</u></td></tr> <tr><td><u>Lepidium virginicum</u></td><td style="text-align: center;"><u>5</u></td><td></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td colspan="2" style="text-align: right;"><u>150</u></td><td colspan="2"><u>= Total Cover</u></td></tr> </table>				<u>Leersia oryzoides</u>	<u>60</u>	<u>X</u>	<u>OBL</u>	<u>Cyperus strigosus</u>	<u>30</u>	<u>X</u>	<u>FACW</u>	<u>Typha angustifolia</u>	<u>20</u>		<u>OBL</u>	<u>Galinsoga quadriradiata</u>	<u>10</u>		<u>FACU</u>	<u>Ambrosia artemisiifolia</u>	<u>10</u>		<u>FACU</u>	<u>Persicaria lapathifolia</u>	<u>5</u>		<u>FACW</u>	<u>Chenopodium album</u>	<u>5</u>		<u>FACU</u>	<u>Agrostis gigantea</u>	<u>5</u>		<u>FACW</u>	<u>Lepidium virginicum</u>	<u>5</u>		<u>FACU</u>	<u>150</u>		<u>= Total Cover</u>		<b>Definitions of Vegetation Strata:</b> Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall. Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall. Woody Vines- All woody vines greater than 3.28ft in height.
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<b>Woody Vine Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status																																									
_____ _____ = Total Cover				Hydrophytic Vegetation Present? Yes <u>X</u> No _____																																								

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200717-WL-27-27W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	10YR 4/2	95	5YR 5/8	5	C	PL	Silty Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/17/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200717-WL-27-27U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.092354</u>	Long: <u>-78.16657</u>
Soil Map Unit Name: <u>CaA</u>	Datum: <u>NAD83</u>	
	NWI Classification: <u>UPL</u>	

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200717-WL-27-27U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Leersia oryzoides</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Galinsoga quadriradiata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Agrostis gigantea</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Chenopodium album</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">90 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>30</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>55</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>220</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>90</u> (A)</td> <td></td> <td style="text-align: center;"><u>260</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>2.89</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>        </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>        </u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;">X 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>        </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>        </u> 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.) disturbed, farm land																																																																																													

## SOIL

Sampling Point: 02-20200717-WL-27-27U

Depth (inches)	Matrix			Redox Features					
	Color		%	Color	%	Type	Loc	Texture	Remarks
0-24	7.5YR	4/2	100	Sandy Clay Loam					
<div><div>Hydric Soil Indicators:</div><div><div><div><div><div></div></div>Histosol (A1)</div><div><div><div></div></div>Histic Epipedon (A2)</div><div><div><div></div></div>Black Histic (A3)</div><div><div><div></div></div>Hydrogen Sulfide (A4)</div><div><div><div></div></div>Stratified Layers (A5)</div><div><div><div></div></div>Depleted Below Dark Surface (A11)</div><div><div><div></div></div>Thick Dark Surface (A12)</div><div><div><div></div></div>Sandy Mucky Mineral (S1)</div><div><div><div></div></div>Sandy Gleyed Matrix (S4)</div><div><div><div></div></div>Sandy Redox (S5)</div><div><div><div></div></div>Stripped Matrix (S6)</div><div><div><div></div></div>Dark Surface (S7)</div></div><div><div>Polyvalue Below Surface (B15)</div><div>Thin Dark Surface (S9)</div><div>Loamy Mucky Mineral (F1)</div><div>Loamy Gleyed Matric (F2)</div><div>Depleted Matrix (F3)</div><div>Redox Dark Surface (F6)</div><div>Depleted Dark Surface (F7)</div><div>Redox Depressions (F8)</div></div></div><div><div>Indicators for Problematic Soils:</div><div><div><div></div></div>2 cm Muck (A10)</div><div><div><div></div></div>Coast Prarie Redox (A16)</div><div><div><div></div></div>5 cm Mucky Peat or Peat (S3)</div><div><div><div></div></div>Dark Surface (S7)</div><div><div><div></div></div>Polyvalue Below Surface (S8)</div><div><div><div></div></div>Thin Dark Surface (S9)</div><div><div><div></div></div>Iron-Manganese Masses (F12)</div><div><div><div></div></div>Piedmont Floodplain Soils (F19)</div><div><div><div></div></div>Mesic Spodic (TA6)</div><div><div><div></div></div>Red Parent Material (F21)</div><div><div><div></div></div>Very Shallow Dark Surface (TF12)</div><div><div><div></div></div>Other (Explain in Remarks)</div></div></div>									
<div>Restrictive Layer (if observed):<div>Type:<div>Depth (inches):</div></div></div>					<div>Hydric Soil Present?    Yes<div>No</div> X</div>				
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/17/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200717-WL-28-28W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.099292 Long: -78.205322 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL81</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200717-WL-28-28W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">80</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Persicaria virginiana</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Solidago gigantea</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Circaea alpina</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Ranunculus acris</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Geum canadense</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Allium vineale</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">72</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Parthenocissus quinquefolia</u>	20	X	FACU		20	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)                      Total Number of Dominant Species Across All Strata: <u>6</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.3%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>65</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>130</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>125</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>375</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>22</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>88</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>212</u> (A)</td> <td></td> <td style="text-align: center;"><u>593</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.8</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>    </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>X</u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>X</u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>    </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>    </u> 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>65</u>	x 2	<u>130</u>	FAC species	<u>125</u>	x 3	<u>375</u>	FACU species	<u>22</u>	x 4	<u>88</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>212</u> (A)		<u>593</u> (B)	Prevalence Index = B/A =			<u>2.8</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200717-WL-28-28W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 4/2	95	5YR 4/6	5	C	PL	Silty Clay Loam		
10-20	5YR 4/2	60	10YR 6/3	40	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/17/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200717-WL-28-28U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.099533</u>	Long: <u>-78.205405</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
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Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

Wetland Hydrology Present?    Yes            No    X

eID: 20200730145706

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200717-WL-28-28U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200717-WL-28-28U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	10YR 4/4	95	10YR 5/8	5	C	PL	Sandy Loam		
<div><div><b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)</div><div><input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)</div><div><b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)</div></div>									
<b>Restrictive Layer (if observed):</b>  Type: <u>Rock</u> Depth (inches): <u>14</u>							Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/17/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200717-WL-29-29U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.099763</u>	Long: <u>-78.204734</u>
Soil Map Unit Name: <u>Ld</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No _____	X _____	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No _____ X _____  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No _____	X _____	
Wetland Hydrology Present?	Yes _____	No _____	X _____	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200717-WL-29-29U

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Sampling Point: 02-20200717-WL-29-29U

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	Color		%	Color	%	Type	Loc	Texture		
0-14	10YR	4/3	100					Sandy Loam		
<div><div><div>Hydric Soil Indicators:</div><div><div><div><div><div></div></div>Histosol (A1)</div><div><div><div></div></div>Histic Epipedon (A2)</div><div><div><div></div></div>Black Histic (A3)</div><div><div><div></div></div>Hydrogen Sulfide (A4)</div><div><div><div></div></div>Stratified Layers (A5)</div><div><div><div></div></div>Depleted Below Dark Surface (A11)</div><div><div><div></div></div>Thick Dark Surface (A12)</div><div><div><div></div></div>Sandy Mucky Mineral (S1)</div><div><div><div></div></div>Sandy Gleyed Matrix (S4)</div><div><div><div></div></div>Sandy Redox (S5)</div><div><div><div></div></div>Stripped Matrix (S6)</div><div><div><div></div></div>Dark Surface (S7)</div></div></div><div><div><div></div></div>Polyvalue Below Surface (B15)</div><div><div><div></div></div>Thin Dark Surface (S9)</div><div><div><div></div></div>Loamy Mucky Mineral (F1)</div><div><div><div></div></div>Loamy Gleyed Matric (F2)</div><div><div><div></div></div>Depleted Matrix (F3)</div><div><div><div></div></div>Redox Dark Surface (F6)</div><div><div><div></div></div>Depleted Dark Surface (F7)</div><div><div><div></div></div>Redox Depressions (F8)</div></div></div> <div><div><div></div></div>2 cm Muck (A10)</div> <div><div><div></div></div>Coast Prarie Redox (A16)</div> <div><div><div></div></div>5 cm Mucky Peat or Peat (S3)</div> <div><div><div></div></div>Dark Surface (S7)</div> <div><div><div></div></div>Polyvalue Below Surface (S8)</div> <div><div><div></div></div>Thin Dark Surface (S9)</div> <div><div><div></div></div>Iron-Manganese Masses (F12)</div> <div><div><div></div></div>Piedmont Floodplain Soils (F19)</div> <div><div><div></div></div>Mesic Spodic (TA6)</div> <div><div><div></div></div>Red Parent Material (F21)</div> <div><div><div></div></div>Very Shallow Dark Surface (TF12)</div> <div><div><div></div></div>Other (Explain in Remarks)</div>										
<div>Restrictive Layer (if observed):<div>Type:<div>Depth (inches):</div></div></div>					<div>Hydric Soil Present? Yes No X</div>					
Remarks:										

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/17/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200717-WL-29-29W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 1 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.099485 Long: -78.204781 Datum: NAD83  
 Soil Map Unit Name: Ld NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL81</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
_____ High Water Table (A2)	<u>X</u> Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200717-WL-29-29W

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">40 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td><u>Fraxinus pennsylvanica</u></td><td style="text-align: center;">30</td><td style="text-align: center;">X</td><td style="text-align: center;">FACW</td></tr> <tr><td><u>Symphotrichum puniceum</u></td><td style="text-align: center;">30</td><td style="text-align: center;">X</td><td style="text-align: center;">OBL</td></tr> <tr><td><u>Scirpus atrovirens</u></td><td style="text-align: center;">30</td><td style="text-align: center;">X</td><td style="text-align: center;">OBL</td></tr> <tr><td><u>Carex alopecoidea</u></td><td style="text-align: center;">20</td><td style="text-align: center;">X</td><td style="text-align: center;">FACW</td></tr> <tr><td><u>Juncus tenuis</u></td><td style="text-align: center;">20</td><td style="text-align: center;">X</td><td style="text-align: center;">FAC</td></tr> <tr><td><u>Euthamia graminifolia</u></td><td style="text-align: center;">20</td><td style="text-align: center;">X</td><td style="text-align: center;">FAC</td></tr> <tr><td><u>Solidago gigantea</u></td><td style="text-align: center;">20</td><td style="text-align: center;">X</td><td style="text-align: center;">FACW</td></tr> <tr><td><u>Trifolium hybridum</u></td><td style="text-align: center;">15</td><td></td><td style="text-align: center;">FACU</td></tr> <tr><td><u>Phalaris arundinacea</u></td><td style="text-align: center;">10</td><td></td><td style="text-align: center;">FACW</td></tr> <tr><td><u>Ranunculus sceleratus</u></td><td style="text-align: center;">10</td><td></td><td style="text-align: center;">OBL</td></tr> <tr><td><u>Heuchera richardsonii</u></td><td style="text-align: center;">10</td><td></td><td style="text-align: center;">FACU</td></tr> <tr><td><u>Anthemis cotula</u></td><td style="text-align: center;">10</td><td></td><td style="text-align: center;">FACU</td></tr> <tr> <td colspan="4" style="text-align: right;">225 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>8</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>70</u></td> <td>x 1</td> <td style="text-align: center;"><u>70</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>120</u></td> <td>x 2</td> <td style="text-align: center;"><u>240</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>40</u></td> <td>x 3</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>35</u></td> <td>x 4</td> <td style="text-align: center;"><u>140</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>265</u></td> <td>(A)</td> <td style="text-align: center;"><u>570</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>2.15</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	<u>70</u>	x 1	<u>70</u>	FACW species	<u>120</u>	x 2	<u>240</u>	FAC species	<u>40</u>	x 3	<u>120</u>	FACU species	<u>35</u>	x 4	<u>140</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>265</u>	(A)	<u>570</u> (B)	Prevalence Index = B/A = <u>2.15</u>			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200717-WL-29-29W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/1	90	2.5Y 4/8	10	C	PL	Sandy Loam		
12-24	10YR 6/4	80	10YR 6/8	20	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/20/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200720WL-30-30W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.100481 Long: -78.211992 Datum: NAD83  
Soil Map Unit Name: LoA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL82</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
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<u>X</u> Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 1  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 1

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200720WL-30-30W

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## SOIL

Sampling Point: 02-20200720WL-30-30W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 4/2	95	5YR 4/4	5	C	PL	Clay Loam		
6-16	10YR 3/2	80	7.5YR 5/6	20	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/20/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200720-WL-30-30U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.100397</u>	Long: <u>-78.211875</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200720-WL-30-30U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 4/2	100						Silt Loam	
4-14	10YR 4/2	95	7.5YR 5/6	5	C	PL		Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200720-WL-31-31W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.100834 Long: -78.220165 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL83</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	<u>X</u> Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible in Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsley Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200720-WL-31-31W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td><u>Elymus glaucus</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Epilobium hirsutum</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Trifolium hybridum</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Sorghum halepense</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Carex alopecoidea</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Rumex crispus</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Cyperus strigosus</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Phleum pratense</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Ranunculus acris</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">180</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status	<u>Elymus glaucus</u>	40	X	FACU	<u>Epilobium hirsutum</u>	30	X	FACW	<u>Trifolium hybridum</u>	25	X	FACU	<u>Sorghum halepense</u>	20		FACU	<u>Carex alopecoidea</u>	20		FACW	<u>Rumex crispus</u>	15		FAC	<u>Cyperus strigosus</u>	10		FACW	<u>Phleum pratense</u>	10		FACU	<u>Ranunculus acris</u>	5		FAC	<u>Typha angustifolia</u>	5		OBL		180	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>3</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>5</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>60</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>20</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>95</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>380</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>180</u> (A)</td> <td></td> <td style="text-align: center;"><u>565</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.14</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>1</u>- Rapid Test For Hydrophytic Vegetation  <u>2</u>- Dominance Test is &gt; 50%  <u>3</u>- Prevalence Index is =&lt; 3.0  <u>4</u>- Morphological Adaptations  <u>5</u>- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes _____ No <u>X</u> </div>	OBL species	<u>5</u>	x 1	<u>5</u>	FACW species	<u>60</u>	x 2	<u>120</u>	FAC species	<u>20</u>	x 3	<u>60</u>	FACU species	<u>95</u>	x 4	<u>380</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>180</u> (A)		<u>565</u> (B)	Prevalence Index = B/A =			<u>3.14</u>
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 Remarks: (Include photo numbers here or on a separate sheet.)  
 altered, farm land

## SOIL

Sampling Point: 02-20200720-WL-31-31W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-2	10YR 4/2	100						Clay	
2-24	10YR 4/2	90	7.5YR 5/8	10	C	PL		Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/20/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200720-WL-31-31U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.100847</u>	Long: <u>-78.219878</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200720-WL-31-31U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Juglans nigra</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Rubus allegheniensis</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Trifolium repens</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Ranunculus acris</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Oxalis corniculata</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">52</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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(7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>        </u> No <u>X</u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>15</u>	x 3	<u>45</u>	FACU species	<u>117</u>	x 4	<u>468</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>132</u> (A)		<u>513</u> (B)	Prevalence Index = B/A = <u>3.89</u>			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200720-WL-31-31U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 4/1	100						Clay	
6-20	10YR 4/1	60	7.5YR 5/3	40	C	M		Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/20/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200720-WL-32-32W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.105543 Long: -78.218782 Datum: NAD83  
Soil Map Unit Name: RoA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL84</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200720-WL-32-32W

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Indicator Status	<u>Acer rubrum</u>	40	X	FAC	<u>Fraxinus pennsylvanica</u>	30	X	FACW		70	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	30	X	FACW	<u>Lonicera tatarica</u>	10	X	FACU		40	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Polygonum aviculare</u>	20	X	FACU	<u>Carex intumescens</u>	15	X	FACW	<u>Carex alopecoidea</u>	15	X	FACW	<u>Typha angustifolia</u>	15	X	OBL	<u>Daucus carota</u>	10		UPL	<u>Toxicodendron radicans</u>	10		FAC	<u>Impatiens capensis</u>	5		FACW		90	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Parthenocissus quinquefolia</u>	5	X	FACU		5	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)                      Total Number of Dominant Species Across All Strata: <u>9</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>95</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>190</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>50</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>150</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>35</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>140</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>50</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>205</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>545</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.66</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;"><u>      </u> 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;"><u>X</u> 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>X</u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;"><u>      </u> 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;"><u>      </u> 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200720-WL-32-32W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 3/2	95	7.5YR 4/6	5	C	PL	Clay		
8-20	7.5YR 6/1	60	7.5YR 5/8	40	C	M	Clay		
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input checked="" type="checkbox"/> Depleted Matrix (F3)  <input checked="" type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/20/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200720-  
Investigator(s): Justin Ahn Section, Township, Range: WL-32-32U  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.105456 Long: -78.218811 Datum: NAD83  
Soil Map Unit Name: RoA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____

Wetland Hydrology Present?    Yes            No    X

eID: 20200730162045

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200720-WL-32-32U

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">70 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Reynoutria japonica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">60 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">10 = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200720-WL-32-32U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/3	98	7.5YR 5/8	2	C	PL	Clay Loam		
12-24	7.5YR 6/1	50	7.5YR 5/8	50	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/29/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 02\_20200929\_WL33\_W2  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.103147 Long: -78.220561 Datum: NAD83  
 Soil Map Unit Name: LoA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL85</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Vegetated ditch

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)	<u>_____</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02\_20200929\_WL33\_W2

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02\_20200929\_WL33\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 3/1	90	10YR 4/6	10	C	M	Loam	
6-12	10YR 4/1	75	10YR 5/6	25	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200720-WL-33-33W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.104771 Long: -78.220513 Datum: NAD83  
 Soil Map Unit Name: RoA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL85</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>X</u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200720-WL-33-33W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharinum</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">100</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Glyceria striata</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Carex cristatella</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Carex crinita</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Carex gynandra</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Scutellaria lateriflora</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">125</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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<u>Fraxinus pennsylvanica</u>	50	X	FACW																																																																																																												
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<u>Fraxinus pennsylvanica</u>	20	X	FACW																																																																																																												
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200720-WL-33-33W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 3/2	90	7.5YR 6/8	10	C	PL	Clay		
10-20	10YR 3/2	60	7.5YR 6/8	40	C	M	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/20/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200720-WL-33-33U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.104348</u>	Long: <u>-78.220402</u>
Soil Map Unit Name: <u>RoA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>X</u>	No	<u>      </u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200720-WL-33-33U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera tatarica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">60</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Prunella vulgaris</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200720-WL-33-33U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/2	100						Silty Clay Loam	
12-16	10YR 4/2	95	10YR 5/6	5	C	PL		Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/20/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200720-WL-34-34W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.105619 Long: -78.214711 Datum: NAD83  
 Soil Map Unit Name: ApA NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL86</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **02-20200720-WL-34-34W**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Euthamia graminifolia</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Juncus tenuis</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Solidago gigantea</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Carex alopecoidea</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cyperus esculentus</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Juncus effusus</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">190 = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-top: 20px;"> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>3</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <hr/> <div> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>95</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>190</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>80</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>240</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>190</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>445</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.34</u></td> </tr> </table> </div> <hr/> <div> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;">_____ 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;">X 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;">X 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;">_____ 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;">_____ 5- Problematic Hydrophytic Vegetation</div> </div> <hr/> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <hr/> <div style="text-align: center;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>15</u>	x 1	<u>15</u>	FACW species	<u>95</u>	x 2	<u>190</u>	FAC species	<u>80</u>	x 3	<u>240</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>190</u>	(A)	<u>445</u> (B)	Prevalence Index = B/A =			<u>2.34</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200720-WL-34-34W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/2	95	5YR 4/6	5	C	PL	Clay Loam		
12-24	10YR 5/4	80	7.5YR 6/8	20	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/20/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200720-WL-34-34U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.105202</u>	Long: <u>-78.21467</u>
Soil Map Unit Name: <u>ApA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
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Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____

Wetland Hydrology Present?    Yes            No    X

eID: 20200731081150

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200720-WL-34-34U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200720-WL-34-34U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/4	100						Clay Loam	
12-20	10YR 5/4	90	7.5YR 6/8	10	C	PL		Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200721-WL-35-35W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.108336 Long: -78.211079 Datum: NAD83  
 Soil Map Unit Name: LoA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL87</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>X</u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsely Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200721-WL-35-35W

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	80	= Total Cover																																																																																																																			
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																																		
<u>Fraxinus pennsylvanica</u>	30	X	FACW																																																																																																																		
<u>Populus deltoides</u>	20	X	FAC																																																																																																																		
	50	= Total Cover																																																																																																																			
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																																		
<u>Carex trisperma</u>	30	X	OBL																																																																																																																		
<u>Menispermum canadense</u>	30	X	FAC																																																																																																																		
<u>Circaea alpina</u>	15		FACW																																																																																																																		
<u>Prunella vulgaris</u>	10		FAC																																																																																																																		
<u>Glyceria striata</u>	10		OBL																																																																																																																		
<u>Fraxinus pennsylvanica</u>	10		FACW																																																																																																																		
<u>Geum canadense</u>	5		FAC																																																																																																																		
<u>Oxalis corniculata</u>	5		FACU																																																																																																																		
<u>Toxicodendron radicans</u>	2		FAC																																																																																																																		
	117	= Total Cover																																																																																																																			
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																																		
<u>Parthenocissus quinquefolia</u>	5	X	FACU																																																																																																																		
	5	= Total Cover																																																																																																																			
OBL species	<u>40</u>	x 1	<u>40</u>																																																																																																																		
FACW species	<u>135</u>	x 2	<u>270</u>																																																																																																																		
FAC species	<u>67</u>	x 3	<u>201</u>																																																																																																																		
FACU species	<u>10</u>	x 4	<u>40</u>																																																																																																																		
UPL species	<u>0</u>	x 5	<u>0</u>																																																																																																																		
Column Totals	<u>252</u> (A)		<u>551</u> (B)																																																																																																																		
Prevalence Index = B/A =			<u>2.19</u>																																																																																																																		

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200721-WL-35-35W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 4/2	100						Clay Loam	
4-16	10YR 5/1	80	2.5Y 7/3	20	C	M		Clay	
16-24	5YR 4/4	85	10YR 5/1	15	C	PL		Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/21/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200721-WL-35-35U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.108068</u>	Long: <u>-78.211051</u>
Soil Map Unit Name: <u>HIB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200721-WL-35-35U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">50</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharum</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">50</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Carex pedunculata</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Symphytotrichum lateriflorum</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Nabalus albus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Carex aquatilis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">65</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Populus deltoides</u>	50	X	FAC		50	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Acer saccharum</u>	50	X	FACU		50	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	20	X	FACW	<u>Carex pedunculata</u>	15	X	FAC	<u>Symphytotrichum lateriflorum</u>	10		FAC	<u>Solidago canadensis</u>	10		FACU	<u>Nabalus albus</u>	5		FACU	<u>Carex aquatilis</u>	5		OBL		65	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>4</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)</p> </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>5</u></td> <td>x 1</td> <td style="text-align: center;"><u>5</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>20</u></td> <td>x 2</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>75</u></td> <td>x 3</td> <td style="text-align: center;"><u>225</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>65</u></td> <td>x 4</td> <td style="text-align: center;"><u>260</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>165</u></td> <td>(A)</td> <td style="text-align: center;"><u>530</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.21</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b> <p><u>      </u> 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>      </u> 3- Prevalence Index is =&lt; 3.0</p> <p><u>      </u> 4- Morphological Adaptations</p> <p><u>      </u> 5- Problematic Hydrophytic Vegetation</p> </div> <div> <b>Definitions of Vegetation Strata:</b> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> </div> <div style="text-align: center; margin-top: 20px;">                 Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>5</u>	x 1	<u>5</u>	FACW species	<u>20</u>	x 2	<u>40</u>	FAC species	<u>75</u>	x 3	<u>225</u>	FACU species	<u>65</u>	x 4	<u>260</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>165</u>	(A)	<u>530</u> (B)	Prevalence Index = B/A =			<u>3.21</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200721-WL-35-35U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 3/4	100						Silt Loam	
12-20	10YR 3/2	90	10YR 6/8	10	C	PL		Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200721-WL-36-36W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.109867 Long: -78.204721 Datum: NAD83  
 Soil Map Unit Name: OnB NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL88</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1) <u>X</u>	Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)	<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200721-WL-36-36W

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200721-WL-36-36W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 3/2	95	7.5YR 4/6	5	C	PL	Clay		
6-20	10YR 4/1	80	10YR 6/4	20	C	M	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/21/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200721-WL-36-36U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.109684</u>	Long: <u>-78.20467</u>
Soil Map Unit Name: <u>OnB</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>  X  </u>
Water Table Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	

Remarks:

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<u>Ambrosia artemisiifolia</u>	15	X	FACU																																																																																						
<u>Daucus carota</u>	10		UPL																																																																																						
<u>Phleum pratense</u>	5		FACU																																																																																						
	60	= Total Cover																																																																																							
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																						
		= Total Cover																																																																																							
OBL species	<u>0</u>	x 1	<u>0</u>																																																																																						
FACW species	<u>0</u>	x 2	<u>0</u>																																																																																						
FAC species	<u>40</u>	x 3	<u>120</u>																																																																																						
FACU species	<u>50</u>	x 4	<u>200</u>																																																																																						
UPL species	<u>40</u>	x 5	<u>200</u>																																																																																						
Column Totals	<u>130</u>	(A)	<u>520</u> (B)																																																																																						
Prevalence Index = B/A =			<u>4</u>																																																																																						

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200721-WL-36-36U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/3	100						Silt Loam	
12-20	10YR 4/3	95	7.5YR 4/6	5	C	PL		Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200721-WL-37-37W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.108228 Long: -78.203999 Datum: NAD83  
 Soil Map Unit Name: LoA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL89</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>X</u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 0  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200721-WL-37-37W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Hamamelis virginiana</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Prunus virginiana</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">90</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phragmites australis</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Glyceria striata</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Onoclea sensibilis</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cicuta maculata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Lysimachia thyrsiflora</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">115</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Hamamelis virginiana</u>	40	X	FACU	<u>Fraxinus pennsylvanica</u>	30	X	FACW	<u>Prunus virginiana</u>	20	X	FACU		90	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	30	X	FACW		30	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Phragmites australis</u>	40	X	FACW	<u>Glyceria striata</u>	30	X	OBL	<u>Onoclea sensibilis</u>	30	X	FACW	<u>Cicuta maculata</u>	10		OBL	<u>Lysimachia thyrsiflora</u>	5		OBL		115	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)                      Total Number of Dominant Species Across All Strata: <u>7</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71.4%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">OBL species</td> <td style="width: 10%; text-align: center;">45</td> <td style="width: 10%;">x 1</td> <td style="width: 50%; text-align: center;">45</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">130</td> <td>x 2</td> <td style="text-align: center;">260</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">0</td> <td>x 3</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">60</td> <td>x 4</td> <td style="text-align: center;">240</td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td>x 5</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;">235</td> <td>(A)</td> <td style="text-align: center;">545 (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.32</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td style="width: 95%;">1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	45	x 1	45	FACW species	130	x 2	260	FAC species	0	x 3	0	FACU species	60	x 4	240	UPL species	0	x 5	0	Column Totals	235	(A)	545 (B)	Prevalence Index = B/A =			<u>2.32</u>		1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200721-WL-37-37W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-6	10YR 2/1	100					Silt Loam	
6-24	10YR 7/2	80	10YR 6/8	20	C	M	Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input checked="" type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200721-WL-38-38W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.107431 Long: -78.206446 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL89</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>X</u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
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<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200721-WL-38-38W

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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>3</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td><u>55</u></td> <td>x 1</td> <td><u>55</u></td> </tr> <tr> <td>FACW species</td> <td><u>15</u></td> <td>x 2</td> <td><u>30</u></td> </tr> <tr> <td>FAC species</td> <td><u>55</u></td> <td>x 3</td> <td><u>165</u></td> </tr> <tr> <td>FACU species</td> <td><u>30</u></td> <td>x 4</td> <td><u>120</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td><u>155</u></td> <td>(A)</td> <td><u>370</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>2.39</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>      </u> 1- Rapid Test For Hydrophytic Vegetation  <u>X</u> 2- Dominance Test is &gt; 50%  <u>X</u> 3- Prevalence Index is =&lt; 3.0  <u>      </u> 4- Morphological Adaptations  <u>      </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>55</u>	x 1	<u>55</u>	FACW species	<u>15</u>	x 2	<u>30</u>	FAC species	<u>55</u>	x 3	<u>165</u>	FACU species	<u>30</u>	x 4	<u>120</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>155</u>	(A)	<u>370</u> (B)	Prevalence Index = B/A =			<u>2.39</u>
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Remarks: (Include photo numbers here or on a separate sheet.)  
 altered due to tire tracks, low and high spots in elevation, upland plants are on high points

## SOIL

Sampling Point: 02-20200721-WL-38-38W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 3/2	90	7.5YR 4/6	10	C	PL	Clay Loam		
10-20	7.5YR 6/4	80	7.5YR 4/6	20	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: 02-20200721-WL-38-38U  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.108362 Long: -78.203976 Datum: NAD83  
 Soil Map Unit Name: LoA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Microtopographic Relief (D4)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 20

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

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Indicator Status	<u>Populus deltoides</u>	50	X	FAC		50	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Rosa multiflora</u>	30	X	FACU	<u>Fagus grandifolia</u>	30	X	FACU	<u>Prunus virginiana</u>	10		FACU		70	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Toxicodendron radicans</u>	20	X	FAC	<u>Onoclea sensibilis</u>	10	X	FACW	<u>Fraxinus pennsylvanica</u>	10	X	FACW		40	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Parthenocissus quinquefolia</u>	20	X	FACU		20	= Total Cover		<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>7</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57.1%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">OBL species</td> <td style="width: 10%; text-align: center;"><u>0</u></td> <td style="width: 10%;">x 1</td> <td style="width: 10%; text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>20</u></td> <td>x 2</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>70</u></td> <td>x 3</td> <td style="text-align: center;"><u>210</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>90</u></td> <td>x 4</td> <td style="text-align: center;"><u>360</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>180</u> (A)</td> <td></td> <td style="text-align: center;"><u>610</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>3.39</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><u>        </u> 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>        </u> 3- Prevalence Index is =&lt; 3.0</p> <p><u>        </u> 4- Morphological Adaptations</p> <p><u>        </u> 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200721-WL-38-38U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-20	7.5YR 3/3	100						Clay Loam	
20-24	10YR 4/2	80	10YR 6/6	20	C	M		Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200721-WL-37-37U  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.1074698 Long: -78.2064822 Datum: NAD83  
Soil Map Unit Name: HIB NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

**VEGETATION - Use scientific names of plants**

 Sampling Point: **02-20200721-WL-37-37U**

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: right; padding-top: 10px;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: right; padding-top: 10px;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Triticum aestivum</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Glyceria striata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Phleum pratense</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right; padding-top: 10px;">100 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: right; padding-top: 10px;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200721-WL-37-37U

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type	Loc		
0-16	2.5Y 3/3	95	7.5YR 4/6	5	C	PL	Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200721-WL-39-39W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.1065594 Long: -78.2094586 Datum: NAD83  
Soil Map Unit Name: HIB NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL90</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
<u>X</u> Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 3  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 0  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200721-WL-39-39W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Salix interior</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">90</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer rubrum</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">15</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Epilobium coloratum</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Equisetum arvense</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Cicuta maculata</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Alisma subcordatum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">85</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200721-WL-39-39W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/2	90	7.5YR 4/6	10	C	PL	Silty Clay Loam		
12-20	10YR 4/2	80	7.5YR 4/6	20	C	M	Silty Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: 02-20200721-WL-39-39U  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.106589 Long: -78.209472 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No _____	X _____	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No _____ X _____  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No _____	X _____	
Wetland Hydrology Present?	Yes _____	No _____	X _____	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
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Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200721-WL-39-39U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200721-WL-39-39U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-14	7.5YR	4/2 100					Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/28/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 02\_20200928\_WL48\_W2  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.089035 Long: -78.213860 Datum: NAD83  
 Soil Map Unit Name: HIB NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL91</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>  X  </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)	<u>  X  </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02\_20200928\_WL48\_W2

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: 30'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer rubrum</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Acer saccharinum</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">80</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: 15'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lindera benzoin</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Acer rubrum</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Ulmus americana</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">50</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: 5'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: 30'radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Acer rubrum</u>	40	X	FAC	<u>Acer saccharinum</u>	40	X	FACW		80	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Lindera benzoin</u>	30	X	FACW	<u>Acer rubrum</u>	15	X	FAC	<u>Ulmus americana</u>	5		FACW		50	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)                      Total Number of Dominant Species Across All Strata: <u>4</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>75</u></td> <td>x 2</td> <td style="text-align: center;"><u>150</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>55</u></td> <td>x 3</td> <td style="text-align: center;"><u>165</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>130</u></td> <td>(A)</td> <td style="text-align: center;"><u>315</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.42</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;">_____ 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;">X 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;">X 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;">_____ 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;">_____ 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>75</u>	x 2	<u>150</u>	FAC species	<u>55</u>	x 3	<u>165</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>130</u>	(A)	<u>315</u> (B)	Prevalence Index = B/A =			<u>2.42</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02\_20200928\_WL48\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-13	10YR 2/1	100						Sandy Loam	
13-18	5Y 6/1	70	10YR 5/8	30	C	M		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/22/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200722-WL-42-42W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.088885 Long: -78.214995 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL91</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	<u>X</u> Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200722-WL-42-42W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cyperus esculentus</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Eleocharis obtusa</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Glyceria striata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Asclepias incarnata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Carex lupuliformis</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Echinochloa crus-galli</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Asclepias syriaca</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Alisma triviale</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">117</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200722-WL-42-42W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 4/4	90	7.5YR 6/8	10	C	PL	Silt Loam		
10-24	10YR 5/1	80	7.5YR 6/8	20	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200723-WL-45-45W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.090341 Long: -78.209459 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL91</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 1  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL-45-45W

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<u>Carex cristatella</u>	5		FACW																																																																																																		
<u>Asclepias incarnata</u>	5		OBL																																																																																																		
<u>Typha angustifolia</u>	5		OBL																																																																																																		
115 = Total Cover																																																																																																					
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_____ = Total Cover																																																																																																					
OBL species	<u>15</u>	x 1	<u>15</u>																																																																																																		
FACW species	<u>100</u>	x 2	<u>200</u>																																																																																																		
FAC species	<u>0</u>	x 3	<u>0</u>																																																																																																		
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Column Totals	<u>115</u>	(A)	<u>215</u> (B)																																																																																																		
Prevalence Index = B/A =			<u>1.87</u>																																																																																																		

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-45-45W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-20	10YR 4/2	80	10YR 6/6	20	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b>  <input type="checkbox"/> Histosol (A1)  <input type="checkbox"/> Histic Epipedon (A2)  <input type="checkbox"/> Black Histic (A3)  <input type="checkbox"/> Hydrogen Sulfide (A4)  <input type="checkbox"/> Stratified Layers (A5)  <input type="checkbox"/> Depleted Below Dark Surface (A11)  <input type="checkbox"/> Thick Dark Surface (A12)  <input type="checkbox"/> Sandy Mucky Mineral (S1)  <input type="checkbox"/> Sandy Gleyed Matrix (S4)  <input type="checkbox"/> Sandy Redox (S5)  <input type="checkbox"/> Stripped Matrix (S6)  <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15)  <input type="checkbox"/> Thin Dark Surface (S9)  <input checked="" type="checkbox"/> Loamy Mucky Mineral (F1)  <input type="checkbox"/> Loamy Gleyed Matrix (F2)  <input type="checkbox"/> Depleted Matrix (F3)  <input type="checkbox"/> Redox Dark Surface (F6)  <input type="checkbox"/> Depleted Dark Surface (F7)  <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b>  <input type="checkbox"/> 2 cm Muck (A10)  <input type="checkbox"/> Coast Prairie Redox (A16)  <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)  <input type="checkbox"/> Dark Surface (S7)  <input type="checkbox"/> Polyvalue Below Surface (S8)  <input type="checkbox"/> Thin Dark Surface (S9)  <input type="checkbox"/> Iron-Manganese Masses (F12)  <input type="checkbox"/> Piedmont Floodplain Soils (F19)  <input type="checkbox"/> Mesic Spodic (TA6)  <input type="checkbox"/> Red Parent Material (F21)  <input type="checkbox"/> Very Shallow Dark Surface (TF12)  <input type="checkbox"/> Other (Explain in Remarks) </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200723-WL-46-46W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.090287 Long: -78.209451 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL91</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **02-20200723-WL-46-46W**

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Carex lupuliformis</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Eleocharis obtusa</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Juncus articulatus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Alisma subcordatum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	40	X	FACW		40	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						_____ = Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Phalaris arundinacea</u>	20	X	FACW	<u>Typha angustifolia</u>	20	X	OBL	<u>Carex lupuliformis</u>	10		OBL	<u>Eleocharis obtusa</u>	10		OBL	<u>Juncus articulatus</u>	5		OBL	<u>Alisma subcordatum</u>	5		OBL		70	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						_____ = Total Cover		<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">OBL species</td> <td style="width: 10%; text-align: center;"><u>50</u></td> <td style="width: 10%; text-align: center;">x 1</td> <td style="width: 50%; text-align: center;"><u>50</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>60</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>110</u> (A)</td> <td></td> <td style="text-align: center;"><u>170</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.55</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><input checked="" type="checkbox"/> 1- Rapid Test For Hydrophytic Vegetation</p> <p><input checked="" type="checkbox"/> 2- Dominance Test is &gt; 50%</p> <p><input checked="" type="checkbox"/> 3- Prevalence Index is =&lt; 3.0</p> <p><input type="checkbox"/> 4- Morphological Adaptations</p> <p><input type="checkbox"/> 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	OBL species	<u>50</u>	x 1	<u>50</u>	FACW species	<u>60</u>	x 2	<u>120</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>110</u> (A)		<u>170</u> (B)	Prevalence Index = B/A =			<u>1.55</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-46-46W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 4/2	100						Clay Loam	
6-24	10YR 4/2	90	7.5YR 4/6	10	C	PL		Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/22/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: 02-20200722-WL-42-42U  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.088844 Long: -78.215014 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200722-WL-42-42U

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																												
				<b>Prevalence Index Worksheet:</b> OBL species <u>0</u> x 1 <u>0</u> FACW species <u>50</u> x 2 <u>100</u> FAC species <u>0</u> x 3 <u>0</u> FACU species <u>30</u> x 4 <u>120</u> UPL species <u>5</u> x 5 <u>25</u> Column Totals <u>85</u> (A) <u>245</u> (B) Prevalence Index = B/A = <u>2.88</u>																												
<b>Shrub Stratum</b> (Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1- Rapid Test For Hydrophytic Vegetation 2- Dominance Test is > 50% X 3- Prevalence Index is =< 3.0 4- Morphological Adaptations 5- Problematic Hydrophytic Vegetation																												
				<b>Definitions of Vegetation Strata:</b> Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall. Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall. Woody Vines- All woody vines greater than 3.28ft in height.																												
<b>Herb Stratum</b> (Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>X</u>																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td><u>Phalaris arundinacea</u></td><td style="text-align: center;"><u>40</u></td><td style="text-align: center;"><u>X</u></td><td style="text-align: center;"><u>FACW</u></td></tr> <tr><td><u>Trifolium pratense</u></td><td style="text-align: center;"><u>20</u></td><td style="text-align: center;"><u>X</u></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td><u>Symphytotrichum lanceolatum</u></td><td style="text-align: center;"><u>10</u></td><td></td><td style="text-align: center;"><u>FACW</u></td></tr> <tr><td><u>Trifolium repens</u></td><td style="text-align: center;"><u>5</u></td><td></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td><u>Erigeron strigosus</u></td><td style="text-align: center;"><u>5</u></td><td></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td><u>Daucus carota</u></td><td style="text-align: center;"><u>5</u></td><td></td><td style="text-align: center;"><u>UPL</u></td></tr> <tr><td colspan="2" style="text-align: right;"><u>85</u></td><td colspan="2">= Total Cover</td></tr> </table>				<u>Phalaris arundinacea</u>	<u>40</u>	<u>X</u>	<u>FACW</u>	<u>Trifolium pratense</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	<u>Symphytotrichum lanceolatum</u>	<u>10</u>		<u>FACW</u>	<u>Trifolium repens</u>	<u>5</u>		<u>FACU</u>	<u>Erigeron strigosus</u>	<u>5</u>		<u>FACU</u>	<u>Daucus carota</u>	<u>5</u>		<u>UPL</u>	<u>85</u>		= Total Cover		
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<u>Daucus carota</u>	<u>5</u>		<u>UPL</u>																													
<u>85</u>		= Total Cover																														
<b>Woody Vine Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status																													

 Remarks: (Include photo numbers here or on a separate sheet.)  
 disturbed, farm land

## SOIL

Sampling Point: 02-20200722-WL-42-42U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-20	10YR 4/6	100					Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/23/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200723-WL-46-46U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.090605</u>	Long: <u>-78.209463</u>
Soil Map Unit Name: <u>CaA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

eID: 20200731155256

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL-46-46U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 35%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 35%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 35%;">Indicator Status</th> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Trifolium pratense</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Trifolium repens</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Erigeron strigosus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Scorzoneroideis autumnalis</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">82</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 35%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>30</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>47</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>188</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>82</u> (A)</td> <td></td> <td style="text-align: center;"><u>273</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.33</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>1- Rapid Test For Hydrophytic Vegetation</u>  <u>2- Dominance Test is &gt; 50%</u>  <u>3- Prevalence Index is =&lt; 3.0</u>  <u>4- Morphological Adaptations</u>  <u>5- Problematic Hydrophytic Vegetation</u> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-46-46U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/6	100						Silty Clay Loam	
12-20	10YR 4/6	95	7.5YR 5/8	5	C	PL		Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200723-  
Investigator(s): Justin Ahn Section, Township, Range: WL-45-45U  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.090158 Long: -78.210171 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL-45-45U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-45-45U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 4/6	100						Silt Loam	
10-20	10YR 4/6	90	7.5YR 5/8	10	C	PL		Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: 02-20200722-  
 Investigator(s): Justin Ahn Section, Township, Range: WL-41-41U  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.096881 Long: -78.211085 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (if no, explain in Remarks.)  
 Are Vegetation X, Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>      </u> No <u>X</u> if yes, optional Wetland Site ID: <u>      </u>
Hydric Soil Present? Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)	<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes        No X Depth (inches)         
 Water Table Present? Yes        No X Depth (inches)         
 Saturation Present? Yes        No X Depth (inches)       

Wetland Hydrology Present? Yes        No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200722-WL-41-41U

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FACU species	<u>20</u>	x 4	<u>80</u>																																																																																														
UPL species	<u>0</u>	x 5	<u>0</u>																																																																																														
Column Totals	<u>145</u> (A)		<u>405</u> (B)																																																																																														
Prevalence Index = B/A =			<u>2.79</u>																																																																																														

 Remarks: (Include photo numbers here or on a separate sheet.)  
 disturbed, tire tracks, wet plants in low areas

## SOIL

Sampling Point: 02-20200722-WL-41-41U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-18	10YR 3/4	95	10YR 6/8	5	C	PL	Silt Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/22/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200722-WL-41-41W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.096544 Long: -78.211522 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL92</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200722-WL-41-41W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cardamine angustata</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Carex cristatella</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Glyceria striata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">57</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	40	X	FACW	<u>Populus deltoides</u>	30	X	FAC		70	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Toxicodendron radicans</u>	20	X	FAC		20	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Cardamine angustata</u>	20	X	FACU	<u>Carex cristatella</u>	15	X	FACW	<u>Fraxinus pennsylvanica</u>	10		FACW	<u>Glyceria striata</u>	10		OBL	<u>Toxicodendron radicans</u>	2		FAC		57	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)                      Total Number of Dominant Species Across All Strata: <u>5</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>10</u></td> <td>x 1</td> <td style="text-align: center;"><u>10</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>65</u></td> <td>x 2</td> <td style="text-align: center;"><u>130</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>52</u></td> <td>x 3</td> <td style="text-align: center;"><u>156</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>20</u></td> <td>x 4</td> <td style="text-align: center;"><u>80</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>147</u></td> <td>(A)</td> <td style="text-align: center;"><u>376</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.56</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;">_____ 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;">X 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;">X 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;">_____ 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;">_____ 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>10</u>	x 1	<u>10</u>	FACW species	<u>65</u>	x 2	<u>130</u>	FAC species	<u>52</u>	x 3	<u>156</u>	FACU species	<u>20</u>	x 4	<u>80</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>147</u>	(A)	<u>376</u> (B)	Prevalence Index = B/A =			<u>2.56</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200722-WL-41-41W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 2/2	90	7.5YR 4/6	10	C	PL	Silty Clay Loam		
6-20	7.5YR 6/4	80	7.5YR 4/6	20	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/22/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200722-WL-40-40U  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.095459 Long: -78.215298 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200722-WL-40-40U

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Geum canadense</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">75</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200722-WL-40-40U

Depth (inches)	Matrix		Redox Features				Remarks	
	Color	%	Color	%	Type	Loc		Texture
0-20	10YR 4/3	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200723-WL-43-43W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.089709 Long: -78.214749 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL93</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **02-20200723-WL-43-43W**

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-43-43W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 4/4	95	7.5YR 6/8	5	C	PL	Silty Clay Loam		
6-20	10YR 4/2	80	7.5YR 6/8	20	C	M	Silty Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200723-  
Investigator(s): Justin Ahn Section, Township, Range: WL-43-43U  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.089838 Long: -78.215082 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL-43-43U

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Trifolium repens</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td>FACU</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td>FACW</td> </tr> <tr> <td><u>Trifolium pratense</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td>FACU</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td>FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">110 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>30</u></td> <td>x 2</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>80</u></td> <td>x 4</td> <td style="text-align: center;"><u>320</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>110</u> (A)</td> <td></td> <td style="text-align: center;"><u>380</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>3.45</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p>_____ 2- Dominance Test is &gt; 50%</p> <p>_____ 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes _____ No <u>X</u></p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>30</u>	x 2	<u>60</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>80</u>	x 4	<u>320</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>110</u> (A)		<u>380</u> (B)	Prevalence Index = B/A = <u>3.45</u>			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-43-43U

Depth (inches)	Matrix		Redox Features				Remarks	
	Color	%	Color	%	Type	Loc		Texture
0-20	10YR 4/6	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200723-WL-44-44W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.088913 Long: -78.211614 Datum: NAD83  
Soil Map Unit Name: ApA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL94</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **02-20200723-WL-44-44W**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lindera benzoin</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Carex alopecoidea</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Lindera benzoin</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Persicaria virginiana</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Circaea alpina</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">60</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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## SOIL

Sampling Point: 02-20200723-WL-44-44W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 4/2	100						Clay Loam	
10-20	10YR 4/2	90	2.5Y 6/8	10	C	PL		Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200723-  
Investigator(s): Justin Ahn Section, Township, Range: WL-44-44U  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.088923 Long: -78.211539 Datum: NAD83  
Soil Map Unit Name: ApA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

Wetland Hydrology Present?    Yes            No    X

eID: 20200731154427

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL-44-44U

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Column Totals	<u>115</u>	(A)	<u>370</u> (B)																																																																																										
Prevalence Index = B/A =			<u>3.22</u>																																																																																										

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-44-44U

Depth (inches)	Matrix		Redox Features				Remarks	
	Color	%	Color	%	Type	Loc		Texture
0-20	10YR 4/6	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/24/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200924\_wl\_110\_u1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.087672 Long: -78.232506 Datum: NAD83  
 Soil Map Unit Name: La NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL95</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>X</u> Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes <u>X</u> No _____ Depth (inches) <u>8</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200924\_wl\_110\_u1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharum</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus amomum</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Lindera benzoin</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Urtica dioica</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">5</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Acer saccharum</u>	40	X	FACU	<u>Fraxinus pennsylvanica</u>	30	X	FACW		70	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Cornus amomum</u>	60	X	FACW	<u>Lindera benzoin</u>	10		FACW		70	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Urtica dioica</u>	5	X	FAC		5	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>4</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>100</u></td> <td>x 2</td> <td style="text-align: center;"><u>200</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td>x 3</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>40</u></td> <td>x 4</td> <td style="text-align: center;"><u>160</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>145</u> (A)</td> <td></td> <td style="text-align: center;"><u>375</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.59</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>  X  </u> 2- Dominance Test is &gt; 50%  <u>  X  </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>  X  </u> No <u>        </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>100</u>	x 2	<u>200</u>	FAC species	<u>5</u>	x 3	<u>15</u>	FACU species	<u>40</u>	x 4	<u>160</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>145</u> (A)		<u>375</u> (B)	Prevalence Index = B/A =			<u>2.59</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200924\_wl\_110\_u1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 2/1	100						Mucky Loam	
8-16	5Y 3/1	95	10YR 5/8	5	C	M		Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/24/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200924\_WL29\_U  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): None Slope (%) 2 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.098373 Long: -78.228308 Datum: NAD83  
Soil Map Unit Name: LmA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200924\_WL29\_U

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;">75</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">145 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">10 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">4</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">14 = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200924\_WL29\_U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	10YR 3/2	100						Sandy Loam	
14-20	10YR 4/2	80	10YR 4/6	20	C	M		Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200723-WL-48-48W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.092695 Long: -78.205165 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL96</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL-48-48W

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OBL species	<u>50</u>	x 1	<u>50</u>																																																																																																		
FACW species	<u>85</u>	x 2	<u>170</u>																																																																																																		
FAC species	<u>30</u>	x 3	<u>90</u>																																																																																																		
FACU species	<u>0</u>	x 4	<u>0</u>																																																																																																		
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Column Totals	<u>165</u>	(A)	<u>310</u> (B)																																																																																																		
Prevalence Index = B/A =			<u>1.88</u>																																																																																																		

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-48-48W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	2.5Y 4/3	90	7.5YR 4/6	10	C	PL	Silty Clay Loam		
10-20	2.5Y 4/2	80	10YR 5/4	20	C	M	Silty Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/23/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200723-WL-48-48U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.092798</u>	Long: <u>-78.20523</u>
Soil Map Unit Name: <u>CaA</u>	Datum: <u>NAD83</u>	
	NWI Classification: <u>UPL</u>	

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL-48-48U

<b>Tree Stratum</b>	(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		40	X	FACW
<u>Crataegus phaenopyrum</u>		30	X	FAC
<u>Fagus grandifolia</u>		20	X	FACU
		90	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: 15'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Rhamnus cathartica</u>		40	X	FAC
		40	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: 5'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Toxicodendron radicans</u>		20	X	FAC
<u>Geum aleppicum</u>		5	X	FAC
		25	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus quinquefolia</u>		10	X	FACU
<u>Vitis riparia</u>		10	X	FAC
		20	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 6 (A)  
 Total Number of Dominant  
 Species Across All Strata: 8 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 75% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0  
 FACW species 40 x 2 80  
 FAC species 105 x 3 315  
 FACU species 30 x 4 120  
 UPL species 0 x 5 0  
 Column Totals 175 (A) 515 (B)  
 Prevalence Index = B/A = 2.94

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- X 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)  
 altered, farm land

## SOIL

Sampling Point: 02-20200723-WL-48-48U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/6	95	7.5YR 5/8	5	C	PL	Silt Loam		
12-20	10YR 4/6	80	7.5YR 5/8	20	C	PL	Silt Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200723-WL-47-47W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.092053 Long: -78.203939 Datum: NAD83  
Soil Map Unit Name: ApA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL97</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	Drainage Patterns (B10)
_____ High Water Table (A2)	Moss Trim Lines (B16)
_____ Saturation (A3)	Dry-Season Water Table (C2)
_____ Water Marks (B1)	Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **02-20200723-WL-47-47W**

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Carex alopecoidea</u></td> <td style="text-align: center;">20</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Carex lupuliformis</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Asclepias incarnata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Alisma subcordatum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td colspan="4" style="text-align: right;">115 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>1</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>30</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>80</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>160</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>115</u> (A)</td> <td></td> <td style="text-align: center;"><u>210</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.83</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>X 1- Rapid Test For Hydrophytic Vegetation</p> <p>X 2- Dominance Test is &gt; 50%</p> <p>X 3- Prevalence Index is =&lt; 3.0</p> <p>4- Morphological Adaptations</p> <p>5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-47-47W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/2	90	7.5YR 4/6	10	C	PL	Silty Clay Loam		
12-24	10YR 4/2	80	7.5YR 4/6	20	C	M	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/23/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200723-WL-47-47U</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range:	
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.091983</u>	Long: <u>-78.203803</u>
Soil Map Unit Name: <u>ApA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

Wetland Hydrology Present?    Yes            No    X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **02-20200723-WL-47-47U**

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Zea mays</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">95 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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(7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes _____ No <u>X</u></p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>30</u>	x 2	<u>60</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>15</u>	x 4	<u>60</u>	UPL species	<u>50</u>	x 5	<u>250</u>	Column Totals	<u>95</u> (A)		<u>370</u> (B)	Prevalence Index = B/A = <u>3.89</u>			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-47-47U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-20	10YR 3/4	95	10YR 6/8	5	C	PL	Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 9/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200923\_WL109\_W1  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.099829 Long: -78.260751 Datum: NAD83  
Soil Map Unit Name: Wy NWI Classification: PUB

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL98</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Pond

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 36  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200923\_WL109\_W1

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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>30</u></td> <td>x 1</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>30</u></td> <td>x 2</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>60</u></td> <td>(A)</td> <td style="text-align: center;"><u>90</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.5</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><u>X</u> 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matric (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Geneseee</u>	Sampling Date: <u>10/1/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: _____	Point: <u>1_20200923_WL109_U1</u>
Landform (hillslope, terrace, etc.): <u>Rise</u>	Local relief (concave, convex, none): <u>Convex</u>	Slope (%) <u>2 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.099816</u>	Long: <u>-78.260801</u>
Soil Map Unit Name: <u>La</u>	Datum: <u>NAD83</u>	
	NW1 Classification: <u>UPL</u>	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.)			

Wetland Hydrology Indicators:				Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required: check all that apply)					
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)			
				<input type="checkbox"/> FAC-Neutral Test (D5)	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches) <input type="text"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches) <input type="text"/>				
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches) <input type="text"/>				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200923\_WL109\_U1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Rhus aromatica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Salix interior</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">35 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Artemisia vulgaris</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Plantago major</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">70 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200923\_WL109\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-12	10YR 3/2	100					Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: <u>Rock/Till</u> Depth (inches): <u>12</u>							Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200723-WL-50-50W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.090767 Long: -78.202383 Datum: NAD83  
Soil Map Unit Name: NgA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL99</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>X</u> Sparsley Vegetated Concave Surface (B8)		<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL-50-50W

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-50-50W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-8	10YR 2/2	100					Clay Loam	
8-20	2.5Y 6/4	90	7.5YR 6/8	10	C	PL	Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200723-  
Investigator(s): Justin Ahn Section, Township, Range: WL-50-50U  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.089373 Long: -78.199224 Datum: NAD83  
Soil Map Unit Name: RsA NWI Classification: UPL

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

eID: 20200731180759

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL-50-50U

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		= Total Cover																																																																																							
OBL species	<u>0</u>	x 1	<u>0</u>																																																																																						
FACW species	<u>5</u>	x 2	<u>10</u>																																																																																						
FAC species	<u>75</u>	x 3	<u>225</u>																																																																																						
FACU species	<u>35</u>	x 4	<u>140</u>																																																																																						
UPL species	<u>0</u>	x 5	<u>0</u>																																																																																						
Column Totals	<u>115</u> (A)		<u>375</u> (B)																																																																																						
Prevalence Index = B/A =			<u>3.26</u>																																																																																						

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-50-50U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-18	10YR 4/6	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/23/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200723-WL49-49W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.089586 Long: -78.198131 Datum: NAD83  
Soil Map Unit Name: Wy NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL100</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL49-49W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Carex alopecoidea</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Solidago gigantea</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Carex cristatella</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Asclepias incarnata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Apocynum cannabinum</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Glyceria striata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Juncus tenuis</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Asclepias syriaca</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Carex lupuliformis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td colspan="4" style="text-align: right;">145 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>3</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>95</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>190</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>20</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>145</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>300</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.07</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">X</td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>25</u>	x 1	<u>25</u>	FACW species	<u>95</u>	x 2	<u>190</u>	FAC species	<u>20</u>	x 3	<u>60</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>5</u>	x 5	<u>25</u>	Column Totals	<u>145</u>	(A)	<u>300</u> (B)	Prevalence Index = B/A =			<u>2.07</u>	X	1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL49-49W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 3/2	90	5YR 4/6	10	C	PL	Silty Clay Loam		
10-20	10YR 5/4	90	7.5YR 6/8	10	C	PL	Clay		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/23/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200723-</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range: _____	<u>WL-49-49U</u>
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.089936</u>	Long: <u>-78.198003</u>
Soil Map Unit Name: <u>RsA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
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<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>  X  </u>
Water Table Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>  X  </u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200723-WL-49-49U

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200723-WL-49-49U

Depth (inches)	Matrix			Redox Features						Remarks
	Color		%	Color	%	Type	Loc	Texture		
0-20	10YR	4/3	100					Silt Loam		
<div><div><div>Hydric Soil Indicators:</div><div><div><div><div><div><div></div></div>Histosol (A1)</div><div><div><div></div></div>Histic Epipedon (A2)</div><div><div><div></div></div>Black Histic (A3)</div><div><div><div></div></div>Hydrogen Sulfide (A4)</div><div><div><div></div></div>Stratified Layers (A5)</div><div><div><div></div></div>Depleted Below Dark Surface (A11)</div><div><div><div></div></div>Thick Dark Surface (A12)</div><div><div><div></div></div>Sandy Mucky Mineral (S1)</div><div><div><div></div></div>Sandy Gleyed Matrix (S4)</div><div><div><div></div></div>Sandy Redox (S5)</div><div><div><div></div></div>Stripped Matrix (S6)</div><div><div><div></div></div>Dark Surface (S7)</div></div></div><div><div><div></div></div>Polyvalue Below Surface (B15)</div><div><div><div></div></div>Thin Dark Surface (S9)</div><div><div><div></div></div>Loamy Mucky Mineral (F1)</div><div><div><div></div></div>Loamy Gleyed Matric (F2)</div><div><div><div></div></div>Depleted Matrix (F3)</div><div><div><div></div></div>Redox Dark Surface (F6)</div><div><div><div></div></div>Depleted Dark Surface (F7)</div><div><div><div></div></div>Redox Depressions (F8)</div></div></div></div> <div><div>Indicators for Problematic Soils:</div><div><div><div></div></div>2 cm Muck (A10)</div><div><div><div></div></div>Coast Prarie Redox (A16)</div><div><div><div></div></div>5 cm Mucky Peat or Peat (S3)</div><div><div><div></div></div>Dark Surface (S7)</div><div><div><div></div></div>Polyvalue Below Surface (S8)</div><div><div><div></div></div>Thin Dark Surface (S9)</div><div><div><div></div></div>Iron-Manganese Masses (F12)</div><div><div><div></div></div>Piedmont Floodplain Soils (F19)</div><div><div><div></div></div>Mesic Spodic (TA6)</div><div><div><div></div></div>Red Parent Material (F21)</div><div><div><div></div></div>Very Shallow Dark Surface (TF12)</div><div><div><div></div></div>Other (Explain in Remarks)</div></div>										
<div>Restrictive Layer (if observed):<div>Type:<div></div>Depth (inches):<div></div></div></div>								<div>Hydric Soil Present?    Yes <div></div> No <div>X</div></div>		
Remarks: <div></div>										

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/24/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200724-WL-51-51W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.085881 Long: -78.211188 Datum: NAD83  
Soil Map Unit Name: Ld NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL101</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	Microtopographic Relief (D4)
_____ Sparsley Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200724-WL-51-51W

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Prevalence Index = B/A = <u>1.69</u>																																																																																													

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200724-WL-51-51W

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-20	10YR 3/1	90	10YR 3/3	10	C	PL	Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Elba/Genesee</u>	Sampling Date: <u>7/24/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling Point: <u>02-20200724-</u>
Investigator(s): <u>Justin Ahn</u>	Section, Township, Range: <u></u>	<u>WL-51-51U</u>
Landform (hillslope, terrace, etc.): <u>Toeslope</u>	Local relief (concave, convex, none): <u>Linear</u>	Slope (%) <u>1 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.086005</u>	Long: <u>-78.211208</u>
Soil Map Unit Name: <u>Ld</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200724-WL-51-51U

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Crataegus phaenopyrum</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td> </td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Geum aleppicum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">45</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Parthenocissus quinquefolia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Crataegus phaenopyrum</u>	40	X	FAC	<u>Populus deltoides</u>	30	X	FAC		70	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status							= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Toxicodendron radicans</u>	20	X	FAC	<u>Alliaria petiolata</u>	20	X	FACU	<u>Geum aleppicum</u>	5		FAC		45	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Parthenocissus quinquefolia</u>	10	X	FACU	<u>Vitis riparia</u>	10	X	FAC		20	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)                      Total Number of Dominant Species Across All Strata: <u>6</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>105</u></td> <td>x 3</td> <td style="text-align: center;"><u>315</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>30</u></td> <td>x 4</td> <td style="text-align: center;"><u>120</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>135</u></td> <td>(A)</td> <td style="text-align: center;"><u>435</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.22</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="border-bottom: 1px solid black; padding-bottom: 2px;">1- Rapid Test For Hydrophytic Vegetation</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">X 2- Dominance Test is &gt; 50%</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">3- Prevalence Index is =&lt; 3.0</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">4- Morphological Adaptations</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>105</u>	x 3	<u>315</u>	FACU species	<u>30</u>	x 4	<u>120</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>135</u>	(A)	<u>435</u> (B)	Prevalence Index = B/A =			<u>3.22</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200724-WL-51-51U

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/6	100						Silt Loam	
12-20	10YR 4/6	95	7.5YR 5/8	5	C	PL		Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/24/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200724-WL-52-52W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.098699 Long: -78.217219 Datum: NAD83  
 Soil Map Unit Name: LoA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL102</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)	<u>      </u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200724-WL-52-52W

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200724-WL-52-52W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-18	10YR 4/2	90	10YR 4/6	10	C	PL	Clay Loam		
18-24	10YR 4/2	80	10YR 4/6	20	C	PL	Clay		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/24/2020  
Applicant/Owner: Hecate State: NY Sampling Point: 02-20200724-  
Investigator(s): Justin Ahn Section, Township, Range: WL-52-52U  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.098615 Long: -78.217214 Datum: NAD83  
Soil Map Unit Name: LoA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

Wetland Hydrology Present?    Yes            No    X

eID: 20200731182702

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200724-WL-52-52U

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## SOIL

Sampling Point: 02-20200724-WL-52-52U

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-18	10YR 3/3	95	5YR 5/6	5	C	PL	Silty Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200921\_WL103\_U1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.090623 Long: -78.270445 Datum: NAD83  
 Soil Map Unit Name: Pd NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL103</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 1\_20200921\_WL103\_U1

<p><b>Tree Stratum</b> (Plot Size: 30'radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: 15'radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>Fraxinus pennsylvanica</td> <td>20</td> <td>X</td> <td>FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">20 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: 5'radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>Phalaris arundinacea</td> <td>90</td> <td>X</td> <td>FACW</td> </tr> <tr> <td>Symphotrichum lateriflorum</td> <td>5</td> <td></td> <td>FAC</td> </tr> <tr> <td>Juncus effusus</td> <td>2</td> <td></td> <td>OBL</td> </tr> <tr> <td>Agrostis gigantea</td> <td>2</td> <td></td> <td>FACW</td> </tr> <tr> <td>Scirpus cyperinus</td> <td>1</td> <td></td> <td>OBL</td> </tr> <tr> <td>Juncus tenuis</td> <td>1</td> <td></td> <td>FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">101 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: 30'radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	Fraxinus pennsylvanica	20	X	FACW	20 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	Phalaris arundinacea	90	X	FACW	Symphotrichum lateriflorum	5		FAC	Juncus effusus	2		OBL	Agrostis gigantea	2		FACW	Scirpus cyperinus	1		OBL	Juncus tenuis	1		FAC	101 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)</p> <p>Total Number of Dominant Species Across All Strata: 2 (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td>3</td> <td>x 1</td> <td>3</td> </tr> <tr> <td>FACW species</td> <td>112</td> <td>x 2</td> <td>224</td> </tr> <tr> <td>FAC species</td> <td>6</td> <td>x 3</td> <td>18</td> </tr> <tr> <td>FACU species</td> <td>0</td> <td>x 4</td> <td>0</td> </tr> <tr> <td>UPL species</td> <td>0</td> <td>x 5</td> <td>0</td> </tr> <tr> <td>Column Totals</td> <td>121 (A)</td> <td></td> <td>245 (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = 2.02</td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>X 1- Rapid Test For Hydrophytic Vegetation</p> <p>X 2- Dominance Test is &gt; 50%</p> <p>X 3- Prevalence Index is =&lt; 3.0</p> <p>4- Morphological Adaptations</p> <p>5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes X No</p>	OBL species	3	x 1	3	FACW species	112	x 2	224	FAC species	6	x 3	18	FACU species	0	x 4	0	UPL species	0	x 5	0	Column Totals	121 (A)		245 (B)	Prevalence Index = B/A = 2.02			
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200921\_WL103\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-5	10YR 3/2	100						Loam	
5-8	10YR 3/2	98	10YR 4/6	2	C	M		Clay Loam	
8-16	7.5YR 5/2	90	10YR 4/6	10	C	M		Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/21/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200921\_WL103\_W2  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.089686 Long: -78.270731 Datum: NAD83  
 Soil Map Unit Name: CbA NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL103</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>X</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Saturation Visible in Aerial Imagery (C9)
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<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200921\_WL103\_W2

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">60</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">85</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">85</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">5</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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	Absolute % Cover	Dominant Species?	Indicator Status																																																																										
_____																																																																													
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<u>Vitis riparia</u>	5	X	FAC																																																																										
	5	= Total Cover																																																																											
OBL species	<u>0</u>	x 1	<u>0</u>																																																																										
FACW species	<u>85</u>	x 2	<u>170</u>																																																																										
FAC species	<u>65</u>	x 3	<u>195</u>																																																																										
FACU species	<u>0</u>	x 4	<u>0</u>																																																																										
UPL species	<u>0</u>	x 5	<u>0</u>																																																																										
Column Totals	<u>150</u>	(A)	<u>365</u> (B)																																																																										
Prevalence Index = B/A =			<u>2.43</u>																																																																										

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200921\_WL103\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-5	10YR 2/2	100						Sandy Loam	
5-12	2.5Y 6/1	95	10YR 6/8	5	C	M		Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 9/22/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200922\_WL103  
Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
Subregion (LRR or MLRA): LRR L Lat: 43.090035 Long: -78.274513 Datum: NAD83  
Soil Map Unit Name: La NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL104</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200922\_WL103**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Acer negundo</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">30</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Salix nigra</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td></td> <td style="text-align: center;">25</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Impatiens capensis</u></td> <td style="text-align: center;">70</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Unknown species</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UNK</td> </tr> <tr> <td><u>Urtica dioica</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Bidens frondosa</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Symphytotrichum lateriflorum</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">150</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">5</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Fraxinus pennsylvanica</u>	15	X	FACW	<u>Acer negundo</u>	15	X	FAC		30	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Salix nigra</u>	25	X	OBL		25	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Impatiens capensis</u>	70	X	FACW	<u>Unknown species</u>	30	X	UNK	<u>Urtica dioica</u>	15		FAC	<u>Bidens frondosa</u>	15		FACW	<u>Symphytotrichum lateriflorum</u>	15		FAC	<u>Ranunculus hispidus</u>	5		FAC		150	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Vitis riparia</u>	5	X	FAC		5	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)                      Total Number of Dominant Species Across All Strata: <u>6</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.3%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>100</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>200</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>55</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>165</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>180</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>390</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.17</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td style="width: 95%;">1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td style="text-align: center;"></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td style="text-align: center;"></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> </div>	OBL species	<u>25</u>	x 1	<u>25</u>	FACW species	<u>100</u>	x 2	<u>200</u>	FAC species	<u>55</u>	x 3	<u>165</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>180</u>	(A)	<u>390</u> (B)	Prevalence Index = B/A =			<u>2.17</u>		1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass species

## SOIL

Sampling Point: **1\_20200922\_WL103**

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 2/1	98	10YR 3/6	2	C	M	Silt Loam		
12-20	10YR 4/1	80	10YR 4/6	20	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Geneseee</u>	Sampling Date: <u>9/22/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling <u>                    </u>
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: <u>                    </u>	Point:1_20200922_WL103_U1
Landform (hillslope, terrace,etc.): <u>Rise</u>	Local relief (concave, convex, none): <u>Convex</u>	Slope (%) <u>2 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.090142</u>	Long: <u>-78.274341</u>
Soil Map Unit Name: <u>La</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?    Yes _____ No <u>  X  </u> Depth (inches) _____ Water Table Present?    Yes _____ No <u>  X  </u> Depth (inches) _____ Saturation Present?    Yes _____ No <u>  X  </u> Depth (inches) _____	Wetland Hydrology Present?    Yes _____ No <u>  X  </u>
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Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200922\_WL103\_U1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Tilia americana</u>		<u>25</u>	<u>X</u>	<u>FACU</u>
		<u>25</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Rhamnus cathartica</u>		<u>50</u>	<u>X</u>	<u>FAC</u>
<u>Fraxinus pennsylvanica</u>		<u>25</u>	<u>X</u>	<u>FACW</u>
		<u>75</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Urtica dioica</u>		<u>15</u>	<u>X</u>	<u>FAC</u>
<u>Alliaria petiolata</u>		<u>5</u>	<u>X</u>	<u>FACU</u>
<u>Bidens frondosa</u>		<u>5</u>	<u>X</u>	<u>FACW</u>
<u>Persicaria virginiana</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
<u>Ranunculus hispidus</u>		<u>3</u>		<u>FAC</u>
		<u>33</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus quinquefolia</u>		<u>10</u>	<u>X</u>	<u>FACU</u>
<u>Toxicodendron radicans</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
		<u>15</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 6 (A)  
 Total Number of Dominant  
 Species Across All Strata: 9 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 66.7% (A/B)

**Prevalence Index Worksheet:**

OBL species	<u>0</u>	x 1	<u>0</u>
FACW species	<u>30</u>	x 2	<u>60</u>
FAC species	<u>78</u>	x 3	<u>234</u>
FACU species	<u>40</u>	x 4	<u>160</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>148</u>	(A)	<u>454</u> (B)
Prevalence Index = B/A = <u>3.07</u>			

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation  
X
- 2- Dominance Test is > 50%
- 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200922\_WL103\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 2/2	100						Sandy Loam	
12-18	10YR 2/2	70	10YR 5/8	30	C	M		Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 10/8/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200922\_WL104  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.089921 Long: -78.273611 Datum: NAD83  
 Soil Map Unit Name: OdA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL105</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

vegetated, maintained ditch

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200922\_WL104**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Agrostis stolonifera</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Schoenoplectus tabernaemontani</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Juncus effusus</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Lythrum salicaria</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Scirpus atrovirens</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ 80 _____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-top: 20px;"> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)     																																																																																																																			

## SOIL

Sampling Point: 1\_20200922\_WL104

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-7	10YR 2/2	95	10YR 3/6	5	C	PL	Sandy Clay Loam	
7-16	10YR 4/1	85	10YR 4/6	15	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:								

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Genesee</u>	Sampling Date: <u>9/22/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling <u>                    </u>
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: <u>                    </u>	Point: <u>1_20200922_WL104_U1</u>
Landform (hillslope, terrace, etc.): <u>Rise</u>	Local relief (concave, convex, none): <u>None</u>	Slope (%) <u>2 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.089914</u>	Long: <u>-78.273536</u>
Soil Map Unit Name: <u>OdA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?** Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
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<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200922\_WL104\_U1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Tilia americana</u>		<u>25</u>	<u>X</u>	<u>FACU</u>
<u>Fraxinus pennsylvanica</u>		<u>25</u>	<u>X</u>	<u>FACW</u>
		<u>50</u>	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Rhamnus cathartica</u>		<u>50</u>	<u>X</u>	<u>FAC</u>
		<u>50</u>	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Urtica dioica</u>		<u>15</u>	<u>X</u>	<u>FAC</u>
<u>Alliaria petiolata</u>		<u>5</u>	<u>X</u>	<u>FACU</u>
<u>Bidens frondosa</u>		<u>5</u>	<u>X</u>	<u>FACW</u>
<u>Persicaria virginiana</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
<u>Ranunculus hispidus</u>		<u>3</u>		<u>FAC</u>
		<u>33</u>	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Parthenocissus quinquefolia</u>		<u>10</u>	<u>X</u>	<u>FACU</u>
<u>Toxicodendron radicans</u>		<u>5</u>	<u>X</u>	<u>FAC</u>
		<u>15</u>	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species  
 That Are OBL, FACW, or FAC: 6 (A)  
 Total Number of Dominant  
 Species Across All Strata: 9 (B)  
 Percent of Dominant Species  
 That Are OBL, FACW, or FAC: 66.7% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0  
 FACW species 30 x 2 60  
 FAC species 78 x 3 234  
 FACU species 40 x 4 160  
 UPL species 0 x 5 0  
 Column Totals 148 (A) 454 (B)  
 Prevalence Index = B/A = 3.07

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X 2- Dominance Test is > 50%
- 3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic  
 Vegetation  
 Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200922\_WL104\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 2/2	100						Sandy Loam	
12-18	10YR 4/1	50	10YR 5/8	50	C	M		Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/22/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200922\_WL105\_W1  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.088693 Long: -78.270644 Datum: NAD83  
Soil Map Unit Name: CbA NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL106</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Drainage Patterns (B10)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Moss Trim Lines (B16)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Saturation Visible in Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Microtopographic Relief (D4)
____ Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200922\_WL105\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lindera benzoin</u></td> <td style="text-align: center;">3</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">3</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">6 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Eutrochium maculatum</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Eupatorium perfoliatum</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Scirpus atrovirens</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Impatiens capensis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Doellingeria umbellata</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Onoclea sensibilis</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Amphicarpaea bracteata</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Phragmites australis</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">88 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>7</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85.7%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>35</u></td> <td>x 1</td> <td style="text-align: center;"><u>35</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>41</u></td> <td>x 2</td> <td style="text-align: center;"><u>82</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>8</u></td> <td>x 3</td> <td style="text-align: center;"><u>24</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>10</u></td> <td>x 4</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>94</u></td> <td>(A)</td> <td style="text-align: center;"><u>181</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.93</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p>_____ 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200922\_WL105\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-2	10YR 2/2	100						Loam	
2-14	10YR 4/2	70	10YR 3/6	30	C	M		Sandy Loam	
14-18	7.5YR 5/3	70	7.5YR 5/6	30	C	M		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/22/2020  
 Applicant/Owner: Hecate State: NY Sampling  
 Investigator(s): Andrew Sorci Section, Township, Range: Point: 1\_20200922\_WL105\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.088826 Long: -78.270683 Datum: NAD83  
 Soil Map Unit Name: CbA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (if no, explain in Remarks.)  
 Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>      </u> No <u>X</u> if yes, optional Wetland Site ID: <u>      </u>
Hydric Soil Present? Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>      </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes        No X Depth (inches)         
 Water Table Present? Yes        No X Depth (inches)         
 Saturation Present? Yes        No X Depth (inches)       

Wetland Hydrology Present? Yes        No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200922\_WL105\_U1

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius ) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Absolute % Cover</th> <th>Dominant Species?</th> <th>Indicator Status</th> </tr> </thead> <tbody> <tr><td><u>Ulmus americana</u></td><td><u>20</u></td><td><u>X</u></td><td><u>FACW</u></td></tr> <tr><td><u>Fraxinus pennsylvanica</u></td><td><u>20</u></td><td><u>X</u></td><td><u>FACW</u></td></tr> <tr><td><u>Quercus macrocarpa</u></td><td><u>20</u></td><td><u>X</u></td><td><u>FACU</u></td></tr> <tr><td><u>Tilia americana</u></td><td><u>15</u></td><td></td><td><u>FACU</u></td></tr> <tr><td><u>Acer saccharum</u></td><td><u>10</u></td><td></td><td><u>FACU</u></td></tr> <tr><td><u>Populus deltoides</u></td><td><u>10</u></td><td></td><td><u>FAC</u></td></tr> <tr><td><u>Carya cordiformis</u></td><td><u>3</u></td><td></td><td><u>FAC</u></td></tr> <tr><td colspan="4" style="text-align: right;"><u>98</u> = Total Cover</td></tr> </tbody> </table>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Ulmus americana</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	<u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	<u>Quercus macrocarpa</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	<u>Tilia americana</u>	<u>15</u>		<u>FACU</u>	<u>Acer saccharum</u>	<u>10</u>		<u>FACU</u>	<u>Populus deltoides</u>	<u>10</u>		<u>FAC</u>	<u>Carya cordiformis</u>	<u>3</u>		<u>FAC</u>	<u>98</u> = Total Cover				<b>Dominance Test Worksheet:</b> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>9</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)</p>								
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<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>        </u>																																													

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200922\_WL105\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	10YR 3/2	100						Sandy Loam	
3-8	10YR 3/2	98	10YR 4/6	2	C	M		Sandy Loam	
8-20	10YR 5/3	99	10YR 4/6	1	C	M		Sand	

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/22/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200922\_WL106\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.088321 Long: -78.271403 Datum: NAD83  
 Soil Map Unit Name: Pd NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL107</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
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Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
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Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200922\_WL106\_W1

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(7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>  X  </u> No <u>        </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>52</u>	x 2	<u>104</u>	FAC species	<u>30</u>	x 3	<u>90</u>	FACU species	<u>30</u>	x 4	<u>120</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>112</u>	(A)	<u>314</u> (B)	Prevalence Index = B/A =			<u>2.8</u>
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 Remarks: (Include photo numbers here or on a separate sheet.)  
 buttressing on trees

## SOIL

Sampling Point: 1\_20200922\_WL106\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 2/1	100						Sandy Loam	
4-16	2.5Y 6/1	75	10YR 5/6	25	C	M		Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Genesee</u>	Sampling Date: <u>9/22/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling <u>                    </u>
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: <u>                    </u>	Point: <u>1_20200922_WL106_U1</u>
Landform (hillslope, terrace, etc.): <u>Rise</u>	Local relief (concave, convex, none): <u>None</u>	Slope (%) <u>2 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.088409</u>	Long: <u>-78.271235</u>
Soil Map Unit Name: <u>Pd</u>	Datum: <u>NAD83</u>	
	NW1 Classification: <u>UPL</u>	

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>

**Is the Sampled Area within a Wetland?**                      Yes        No X

if yes, optional Wetland Site ID:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200922\_WL106\_U1

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(7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>50</u>	x 2	<u>100</u>	FAC species	<u>58</u>	x 3	<u>174</u>	FACU species	<u>70</u>	x 4	<u>280</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>178</u> (A)		<u>554</u> (B)	Prevalence Index = B/A =			<u>3.11</u>
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 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass species; unidentifiable in the field

## SOIL

Sampling Point: 1\_20200922\_WL106\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-11	10YR 2/2	100					Sandy Loam	
11-20	10YR 5/3	80	10YR 4/6	20	C	M	Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> <div> <b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/23/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200923\_WL108  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR L Lat: 43.106884 Long: -78.262692 Datum: NAD83  
 Soil Map Unit Name: Fo NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL108</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>X</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsley Vegetated Concave Surface (B8)	<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200923\_WL108**

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200923\_WL108

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 2/1	95	7.5YR 4/6	5	C	PL	Silty Clay Loam		
8-16	10YR 2/1	85	7.5YR 4/6	15	C	M	Silty Clay Loam		
16-20	2.5Y 6/2	90	2.5Y 5/6	10	C	M	Sand		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Genesee</u>	Sampling Date: <u>9/23/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling <u>                    </u>
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: <u>                    </u>	Point: <u>1_20200923_WL108_U1</u>
Landform (hillslope, terrace, etc.): <u>Rise</u>	Local relief (concave, convex, none): <u>None</u>	Slope (%) <u>2 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.106822</u>	Long: <u>-78.262632</u>
Soil Map Unit Name: <u>RoA</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present?    Yes _____    No <u>X</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches) _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches) _____	

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200923\_WL108\_U1**

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<u>Amaranthus albus</u>	5		FACU																																																																																																										
<u>Urtica dioica</u>	5		FAC																																																																																																										
<u>Xanthium spinosum</u>	3		FACU																																																																																																										
<u>Echinochloa crus-galli</u>	2		FAC																																																																																																										
_____ = Total Cover																																																																																																													
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_____	_____	_____	_____																																																																																																										
_____ = Total Cover																																																																																																													
OBL species	<u>0</u>	x 1	<u>0</u>																																																																																																										
FACW species	<u>45</u>	x 2	<u>90</u>																																																																																																										
FAC species	<u>20</u>	x 3	<u>60</u>																																																																																																										
FACU species	<u>43</u>	x 4	<u>172</u>																																																																																																										
UPL species	<u>0</u>	x 5	<u>0</u>																																																																																																										
Column Totals	<u>108</u> (A)		<u>322</u> (B)																																																																																																										
Prevalence Index = B/A = <u>2.98</u>																																																																																																													

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200923\_WL108\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-10	10YR 2/2	100					Sandy Loam	
10-20	10YR 3/2	100					Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 10/8/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200922\_WL109\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 15  
 Subregion (LRR or MLRA): LRR L Lat: 43.096252 Long: -78.277469 Datum: NAD83  
 Soil Map Unit Name: La NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL109</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

vegetated ditch

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u>X</u> Drainage Patterns (B10)
_____ Water-Stained Leaves (B9)	_____ Moss Trim Lines (B16)
<u>X</u> High Water Table (A2)	_____ Dry-Season Water Table (C2)
_____ Aquatic Fauna (B13)	_____ Crayfish Burrows (C8)
<u>X</u> Saturation (A3)	<u>X</u> Saturation Visible in Aerial Imagery (C9)
_____ Marl Deposits (B15)	_____ Stunted or Stressed Plants (D1)
_____ Water Marks (B1)	<u>X</u> Geomorphic Position (D2)
_____ Sediment Deposits (B2)	_____ Shallow Aquitard (D3)
_____ Drift Deposits (B3)	_____ Microtopographic Relief (D4)
_____ Algal Mat or Crust (B4)	<u>X</u> FAC-Neutral Test (D5)
_____ Iron Deposits (B5)	
_____ Inundation Visible on Aerial Imagery (B7)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	
_____ Sparsley Vegetated Concave Surface (B8)	

Surface Water Present? Yes <u>X</u> No _____ Depth (inches) <u>4</u>	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes <u>X</u> No _____ Depth (inches) <u>0</u>	
Saturation Present? Yes <u>X</u> No _____ Depth (inches) <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200922\_WL109\_W1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td><u>Typha angustifolia</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> <td></td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> <td></td> </tr> <tr> <td></td> <td colspan="4" style="text-align: right;">65 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 20%;"></th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status								_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status								_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status		<u>Typha angustifolia</u>	40	X	OBL		<u>Phalaris arundinacea</u>	25	X	FACW			65 = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status								_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>40</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>40</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>50</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>65</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>90</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>1.38</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">X</td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>40</u>	x 1	<u>40</u>	FACW species	<u>25</u>	x 2	<u>50</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>65</u>	(A)	<u>90</u> (B)	Prevalence Index = B/A =			<u>1.38</u>	X	1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																					
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Remarks: (Include photo numbers here or on a separate sheet.)

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Genesee</u>	Sampling Date: <u>9/22/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling <u>                    </u>
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: <u>                    </u>	Point: <u>1_20200922_WL105_U1</u>
Landform (hillslope, terrace, etc.): <u>Rise</u>	Local relief (concave, convex, none): <u>None</u>	Slope (%) <u>0 - 5</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.096253</u>	Long: <u>-78.277470</u>
Soil Map Unit Name: <u>CbA</u>	Datum: <u>NAD83</u>	
	NW1 Classification: <u>UPL</u>	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation   X  , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?    Yes _____ No <u>X</u> Hydric Soil Present?                 Yes _____ No <u>X</u> Wetland Hydrology Present?        Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  if yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="background-color: #f0f0f0; padding: 5px; margin-top: 5px;">Recently mowed field</div>	

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required: check all that apply)			Surface Soil Cracks (B6)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)		<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)		<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> Microtopographic Relief (D4)	
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)			<input type="checkbox"/> FAC-Neutral Test (D5)	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	Depth (inches) <input type="text"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	Depth (inches) <input type="text"/>			
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	Depth (inches) <input type="text"/>			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				
Remarks:				

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20200922\_WL105\_U1**

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																																
_____ _____ = Total Cover				<b>Prevalence Index Worksheet:</b> OBL species <u>0</u> x 1 <u>0</u> FACW species <u>0</u> x 2 <u>0</u> FAC species <u>0</u> x 3 <u>0</u> FACU species <u>50</u> x 4 <u>200</u> UPL species <u>5</u> x 5 <u>25</u> Column Totals <u>55</u> (A) <u>225</u> (B) Prevalence Index = B/A = <u>4.09</u>																																
<b>Shrub Stratum</b> (Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status																																	
_____ _____ = Total Cover																																				
<b>Herb Stratum</b> (Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> _____ 1- Rapid Test For Hydrophytic Vegetation _____ 2- Dominance Test is > 50% _____ 3- Prevalence Index is =< 3.0 _____ 4- Morphological Adaptations _____ 5- Problematic Hydrophytic Vegetation																																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Unknown species</td><td style="text-align: center;">40</td><td style="text-align: center;">X</td><td style="text-align: center;">UNK</td></tr> <tr><td>Cirsium arvense</td><td style="text-align: center;">15</td><td style="text-align: center;">X</td><td style="text-align: center;">FACU</td></tr> <tr><td>Taraxacum officinale</td><td style="text-align: center;">10</td><td></td><td style="text-align: center;">FACU</td></tr> <tr><td>Trifolium pratense</td><td style="text-align: center;">10</td><td></td><td style="text-align: center;">FACU</td></tr> <tr><td>Lotus corniculatus</td><td style="text-align: center;">10</td><td></td><td style="text-align: center;">FACU</td></tr> <tr><td>Plantago major</td><td style="text-align: center;">5</td><td></td><td style="text-align: center;">FACU</td></tr> <tr><td>Daucus carota</td><td style="text-align: center;">5</td><td></td><td style="text-align: center;">UPL</td></tr> <tr><td colspan="2" style="text-align: right;">95</td><td colspan="2">= Total Cover</td></tr> </table>				Unknown species	40	X	UNK	Cirsium arvense	15	X	FACU	Taraxacum officinale	10		FACU	Trifolium pratense	10		FACU	Lotus corniculatus	10		FACU	Plantago major	5		FACU	Daucus carota	5		UPL	95		= Total Cover		<b>Definitions of Vegetation Strata:</b> Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.  Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.  Woody Vines- All woody vines greater than 3.28ft in height.
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<b>Woody Vine Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status																																	
_____ _____ = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>																																

 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass due to recent mowing

## SOIL

Sampling Point: 1\_20200922\_WL105\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-13	10YR 3/2	99	10YR 3/6	1	C	M	Sandy Loam		
13-20	10YR 3/3	95	10YR 4/6	5	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 10/8/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20201008\_WL110\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR L Lat: 43.097739 Long: -78.240328 Datum: NAD83  
 Soil Map Unit Name: La NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL110</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Water-Stained Leaves (B9)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Aquatic Fauna (B13)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Marl Deposits (B15)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Hydrogen Sulfide Odor (C1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>  X  </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<u>  X  </u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)		<u>  X  </u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20201008\_WL110\_W1

<b>Tree Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Fraxinus pennsylvanica</u>		50	X	FACW
<u>Acer saccharinum</u>		20	X	FACW
		70	= Total Cover	

<b>Shrub Stratum</b>	(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Cornus amomum</u>		50	X	FACW
		50	= Total Cover	

<b>Herb Stratum</b>	(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
<u>Lysimachia nummularia</u>		20	X	FACW
<u>Scirpus atrovirens</u>		15	X	OBL
<u>Symphotrichum lanceolatum</u>		15	X	FACW
<u>Bidens frondosa</u>		10		FACW
		60	= Total Cover	

<b>Woody Vine Stratum</b>	(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status
			= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)  
 Total Number of Dominant Species Across All Strata: 6 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index Worksheet:**

OBL species 15 x 1 15  
 FACW species 165 x 2 330  
 FAC species 0 x 3 0  
 FACU species 0 x 4 0  
 UPL species 0 x 5 0  
 Column Totals 180 (A) 345 (B)  
 Prevalence Index = B/A = 1.92

**Hydrophytic Vegetation Indicators:**

X 1- Rapid Test For Hydrophytic Vegetation  
 X 2- Dominance Test is > 50%  
 X 3- Prevalence Index is =< 3.0  
 4- Morphological Adaptations  
 5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic Vegetation Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20201008\_WL110\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	10YR 2/2	95	10YR 4/4	5	C	M	Sandy Clay Loam		
3-16	10YR 4/1	80	10YR 4/6	20	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 10/1/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20201008\_WL110\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 8  
 Subregion (LRR or MLRA): LRR L Lat: 43.097691 Long: -78.240271 Datum: NAD83  
 Soil Map Unit Name: La NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20201008\_WL110\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td><u>Pinus strobus</u></td> <td style="text-align: center;"><u>75</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>75</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;"><u>50</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>50</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">_____ = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>25</u></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Pinus strobus</u>	<u>75</u>	<u>X</u>	<u>FACU</u>		<u>75</u>	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Lonicera morrowii</u>	<u>50</u>	<u>X</u>	<u>FACU</u>		<u>50</u>	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						_____ = Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Vitis riparia</u>	<u>15</u>	<u>X</u>	<u>FAC</u>	<u>Toxicodendron radicans</u>	<u>10</u>	<u>X</u>	<u>FAC</u>		<u>25</u>	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>4</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>25</u></td> <td>x 3</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>125</u></td> <td>x 4</td> <td style="text-align: center;"><u>500</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>150</u></td> <td>(A)</td> <td style="text-align: center;"><u>575</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.83</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>                      _____ 1- Rapid Test For Hydrophytic Vegetation                      _____ 2- Dominance Test is &gt; 50%                      _____ 3- Prevalence Index is =&lt; 3.0                      _____ 4- Morphological Adaptations                      _____ 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes _____ No <u>X</u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>0</u>	x 2	<u>0</u>	FAC species	<u>25</u>	x 3	<u>75</u>	FACU species	<u>125</u>	x 4	<u>500</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>150</u>	(A)	<u>575</u> (B)	Prevalence Index = B/A =			<u>3.83</u>
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	Absolute % Cover	Dominant Species?	Indicator Status																																																																														
<u>Vitis riparia</u>	<u>15</u>	<u>X</u>	<u>FAC</u>																																																																														
<u>Toxicodendron radicans</u>	<u>10</u>	<u>X</u>	<u>FAC</u>																																																																														
	<u>25</u>	= Total Cover																																																																															
OBL species	<u>0</u>	x 1	<u>0</u>																																																																														
FACW species	<u>0</u>	x 2	<u>0</u>																																																																														
FAC species	<u>25</u>	x 3	<u>75</u>																																																																														
FACU species	<u>125</u>	x 4	<u>500</u>																																																																														
UPL species	<u>0</u>	x 5	<u>0</u>																																																																														
Column Totals	<u>150</u>	(A)	<u>575</u> (B)																																																																														
Prevalence Index = B/A =			<u>3.83</u>																																																																														

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point:

**1\_20201008\_WL110\_U1**

Depth (inches)	Matrix		Redox Features						1_20201008_WL110_U1
	Color	%	Color	%	Type	Loc	Texture	Remarks	
0-4	10YR 2/2	100					Sandy Loam		
4-15	10YR 3/2	100					Sandy Loam		
15-20	10YR 4/2	97	10YR 4/4	3	C	M	Loam		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No   X  

Remarks:

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Gennessee Sampling Date: 10/8/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20201008\_WL111\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.098295 Long: -78.236684 Datum: NAD83  
 Soil Map Unit Name: La NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL111</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>      </u> Surface Water (A1)	<u>      </u> Drainage Patterns (B10)
<u>      </u> High Water Table (A2)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Saturation (A3)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Water Marks (B1)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Saturation Visible in Aerial Imagery (C9)
<u>      </u> Drift Deposits (B3)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> <u>X</u> Geomorphic Position (D2)
<u>      </u> Iron Deposits (B5)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Sparsley Vegetated Concave Surface (B8)	<u>      </u> <u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20201008\_WL111\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Acer saccharinum</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">45</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus amomum</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cornus racemosa</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Acer rubrum</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">100</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Symphotrichum lateriflorum</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Eutrochium purpureum</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Vitis riparia</u>	10	X	FAC		10	= Total Cover		<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>7</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>110</u></td> <td>x 2</td> <td style="text-align: center;"><u>220</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>85</u></td> <td>x 3</td> <td style="text-align: center;"><u>255</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>195</u></td> <td>(A)</td> <td style="text-align: center;"><u>475</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.44</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><u>        </u> 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p><u>        </u> 4- Morphological Adaptations</p> <p><u>        </u> 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: right;">Hydrophytic Vegetation Present? Yes <u>X</u> No <u>        </u></p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>110</u>	x 2	<u>220</u>	FAC species	<u>85</u>	x 3	<u>255</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>195</u>	(A)	<u>475</u> (B)	Prevalence Index = B/A =			<u>2.44</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20201008\_WL111\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	10YR 2/2	95	10YR 4/4	5	C	M	Sandy Clay Loam		
3-16	10YR 4/1	80	10YR 4/6	20	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

Project/Site: <u>Cider Solar Project</u>	City/County: <u>Oakfield/Geneseee</u>	Sampling Date: <u>10/8/2020</u>
Applicant/Owner: <u>Hecate</u>	State: <u>NY</u>	Sampling <u>                    </u>
Investigator(s): <u>Andrew Sorci</u>	Section, Township, Range: <u>                    </u>	Point: <u>1_20201008_WL111_U1</u>
Landform (hillslope, terrace, etc.): <u>Shoulder</u>	Local relief (concave, convex, none): <u>Convex</u>	Slope (%) <u>3 - 15</u>
Subregion (LRR or MLRA): <u>LRR L</u>	Lat: <u>43.098326</u>	Long: <u>-78.236754</u>
Soil Map Unit Name: <u>La</u>	Datum: <u>NAD83</u>	NWI Classification: <u>UPL</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes   X   No        (if no, explain in Remarks.)

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes   X   No       

Are Vegetation       , Soil       , or Hydrology        naturally problematic? (if needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____
Wetland Hydrology Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present?	Yes	No	X	Depth (inches)
Water Table Present?	Yes	No	X	Depth (inches)
Saturation Present?	Yes	No	X	Depth (inches)

Wetland Hydrology Present?    Yes            No    X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Form adapted from US Army Corp of Engineers - Northcentral and Northeast Region - Wetlands Determination Form - version 2.0

eID: 20201019122533

**VEGETATION - Use scientific names of plants**

 Sampling Point: **1\_20201008\_WL111\_U1**

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 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass due to recent mowing

## SOIL

Sampling Point: 1\_20201008\_WL111\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-7	10YR 3/2	100					Sandy Loam	Gravelly
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: <u>Rock/Till</u> Depth (inches): <u>7</u>							Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genessee Sampling Date: 7/15/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200715\_WL22\_U1  
 Landform (hillslope, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex Slope (%) 5 - 10  
 Subregion (LRR or MLRA): LRR L Lat: 43.092365 Long: -78.243538 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

Edge of agricultural field, recently tilled

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
<u>_____</u> Water Marks (B1)	<u>_____</u> Crayfish Burrows (C8)
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Saturation Visible in Aerial Imagery (C9)
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Stunted or Stressed Plants (D1)
<u>_____</u> Algal Mat or Crust (B4)	<u>_____</u> Geomorphic Position (D2)
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsely Vegetated Concave Surface (B8)	<u>_____</u> FAC-Neutral Test (D5)
<u>_____</u> Water-Stained Leaves (B9)	
<u>_____</u> Aquatic Fauna (B13)	
<u>_____</u> Marl Deposits (B15)	
<u>_____</u> Hydrogen Sulfide Odor (C1)	
<u>_____</u> Oxidized Rhizospheres on Living Roots (C3)	
<u>_____</u> Presence of Reduced Iron (C4)	
<u>_____</u> Recent Iron Reduction in Tilled Soils (C6)	
<u>_____</u> Thin Muck Surface (C7)	
<u>_____</u> Other (Explain in Remarks)	

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200715\_WL22\_U1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200715\_WL22\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 3/2	100						Sandy Loam	
10-18	10YR 4/3	99	10YR 3/6	1	C	M		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <input checked="" type="checkbox"/> X	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/17/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20200717\_WL29\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): None Slope (%) 0 - 3  
 Subregion (LRR or MLRA): LRR L Lat: 43.095362 Long: -78.231783 Datum: NAD83  
 Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20200717\_WL29\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">85</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Ambrosia artemisiifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Plantago major</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Cyperus strigosus</u></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">104 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">OBL species</td> <td style="width: 10%; text-align: center;">0</td> <td style="width: 10%;">x 1</td> <td style="width: 10%; text-align: center;">0</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">4</td> <td>x 2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">0</td> <td>x 3</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">15</td> <td>x 4</td> <td style="text-align: center;">60</td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">85</td> <td>x 5</td> <td style="text-align: center;">425</td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;">104 (A)</td> <td></td> <td style="text-align: center;">493 (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A = <u>4.74</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>1-</u> Rapid Test For Hydrophytic Vegetation  <u>2-</u> Dominance Test is &gt; 50%  <u>3-</u> Prevalence Index is =&lt; 3.0  <u>4-</u> Morphological Adaptations  <u>5-</u> Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Remarks: (Include photo numbers here or on a separate sheet.)																																																																																									

## SOIL

Sampling Point: 1\_20200717\_WL29\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-16	10YR 2/2	100						Sandy Clay Loam	
16-20	10YR 5/2	70	10YR 5/8	30	C	M		Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <input checked="" type="checkbox"/> X	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling Point:   
Investigator(s): Andrew Sorci Section, Township, Range:  1\_20200720\_WL42\_U1  
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Concave Slope (%) 1 - 10  
Subregion (LRR or MLRA): LRR L Lat: 43.097375 Long: -78.219360 Datum: NAD83  
Soil Map Unit Name: CaA NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> if yes, optional Wetland Site ID: <u></u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u></u> No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u></u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u></u> Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u></u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	Wetland Hydrology Present? Yes <u></u> No <u>X</u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: 1\_20200720\_WL42\_U1

<b>Tree Stratum</b>		(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status
			_____ = Total Cover		
<b>Shrub Stratum</b>		(Plot Size: 15'radius )	Absolute % Cover	Dominant Species?	Indicator Status
			_____ = Total Cover		
<b>Herb Stratum</b>		(Plot Size: 5'radius )	Absolute % Cover	Dominant Species?	Indicator Status
Daucus carota			25	X	UPL
Lolium perenne			15	X	FACU
Trifolium pratense			5		FACU
Solidago canadensis			5		FACU
Daucus carota			5	X	UPL
Plantago major			4		FACU
Ambrosia artemisiifolia			3		FACU
			62	= Total Cover	
<b>Woody Vine Stratum</b>		(Plot Size: 30'radius )	Absolute % Cover	Dominant Species?	Indicator Status
Parthenocissus quinquefolia			10	X	FACU
Vitis riparia			3	X	FAC
			13	= Total Cover	

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

**Prevalence Index Worksheet:**

OBL species 0 x 1 0

FACW species 0 x 2 0

FAC species 3 x 3 9

FACU species 42 x 4 168

UPL species 30 x 5 150

Column Totals 75 (A) 327 (B)

Prevalence Index = B/A = 4.36

**Hydrophytic Vegetation Indicators:**

1- Rapid Test For Hydrophytic Vegetation

2- Dominance Test is > 50%

3- Prevalence Index is =< 3.0

4- Morphological Adaptations

5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic Vegetation Present?

Yes No X

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200720\_WL42\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-14	10YR 3/2	100						Sandy Loam	
14-20	10YR 3/2	95	10YR 5/6	5	C	M		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <input checked="" type="checkbox"/> X	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 7/23/2020  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_07232020\_WL50\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 0 - 15  
 Subregion (LRR or MLRA): LRR R Lat: 43.099379 Long: -78.225187 Datum: NAD83  
 Soil Map Unit Name: CIB NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL50</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

Associated with stream

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u>X</u> No <u></u> Depth (inches) <u>2</u>	Wetland Hydrology Present? Yes <u>X</u> No <u></u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u>X</u> No <u></u> Depth (inches) <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** - Use scientific names of plants

Sampling Point: 1\_07232020\_WL50\_W1

<b>Tree Stratum</b> (Plot Size: <u>30'radius</u> )  <u>Juglans cinerea</u>    	Absolute % Cover	Dominant Species?	Indicator Status	
	<u>10</u>	<u>X</u>	<u>FACU</u>	
	<u>10</u>	<u>= Total Cover</u>		
<b>Shrub Stratum</b> (Plot Size: <u>15'radius</u> )  <u>Fraxinus pennsylvanica</u>    	Absolute % Cover	Dominant Species?	Indicator Status	
	<u>40</u>	<u>X</u>	<u>FACW</u>	
	<u>40</u>	<u>= Total Cover</u>		
<b>Herb Stratum</b> (Plot Size: <u>5'radius</u> )  <u>Phalaris arundinacea</u> <u>Euthamia graminifolia</u>  	Absolute % Cover	Dominant Species?	Indicator Status	
	<u>90</u>	<u>X</u>	<u>FACW</u>	
	<u>15</u>		<u>FAC</u>	
	<u>105</u>	<u>= Total Cover</u>		
<b>Woody Vine Stratum</b> (Plot Size: <u>30'radius</u> )    	Absolute % Cover	Dominant Species?	Indicator Status	
		<u>= Total Cover</u>		

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

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**Prevalence Index Worksheet:**

OBL species	<u>0</u>	x 1	<u>0</u>
FACW species	<u>130</u>	x 2	<u>260</u>
FAC species	<u>15</u>	x 3	<u>45</u>
FACU species	<u>10</u>	x 4	<u>40</u>
UPL species	<u>0</u>	x 5	<u>0</u>
Column Totals	<u>155</u>	(A)	<u>345</u> (B)
Prevalence Index = B/A =			<u>2.23</u>

---

**Hydrophytic Vegetation Indicators:**

- 1- Rapid Test For Hydrophytic Vegetation
- X     2- Dominance Test is > 50%
- X     3- Prevalence Index is =< 3.0
- 4- Morphological Adaptations
- 5- Problematic Hydrophytic Vegetation

---

**Definitions of Vegetation Strata:**

Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.

Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.

Woody Vines- All woody vines greater than 3.28ft in height.

---

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_07232020\_WL50\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 4/2	95	10YR 4/4	5	C	PL	Loamy Sand		
4-9	7.5YR 5/3	80	7.5YR 5/8	20	C	M	Sandy Clay Loam		

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (B15)  
☐ Thin Dark Surface (S9)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

**Indicators for Problematic Soils:**

☐ 2 cm Muck (A10)  
☐ Coast Prairie Redox (A16)  
☐ 5 cm Mucky Peat or Peat (S3)  
☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8)  
☐ Thin Dark Surface (S9)  
☐ Iron-Manganese Masses (F12)  
☐ Piedmont Floodplain Soils (F19)  
☐ Mesic Spodic (TA6)  
☐ Red Parent Material (F21)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: Rock \_\_\_\_\_  
 Depth (inches): 9 \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/14/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20210114\_WL57\_57W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR R Lat: 43.108912 Long: -78.192589 Datum: NAD83  
 Soil Map Unit Name: ApA Appleton silt loam, 0 to 3 percent slopes NWI Classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL58</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Linear, roadside vegetated ditch

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsely Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 1  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210114\_WL57\_57W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">90</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Euthamia graminifolia</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">100</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status	<u>Phalaris arundinacea</u>	90	X	FACW	<u>Euthamia graminifolia</u>	10		FAC		100	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>90</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>180</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>100</u> (A)</td> <td></td> <td style="text-align: center;"><u>210</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.1</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;"><u>X</u></td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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Yes <u>X</u> No _____                 </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>90</u>	x 2	<u>180</u>	FAC species	<u>10</u>	x 3	<u>30</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>100</u> (A)		<u>210</u> (B)	Prevalence Index = B/A =			<u>2.1</u>	<u>X</u>	1- Rapid Test For Hydrophytic Vegetation	<u>X</u>	2- Dominance Test is > 50%	<u>X</u>	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210114\_WL57\_57W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-5	10YR 3/2	100						Sandy Loam	
5-18	10YR 5/2	90	10YR 5/6	10	C	M		Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/14/2021  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20210114\_WL113\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR R Lat: 43.105387 Long: -78.242437 Datum: NAD83  
 Soil Map Unit Name: Ma Madalin silty clay loam, 0 to 3 percent slopes NWI Classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL113</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	Drainage Patterns (B10)
<u></u> High Water Table (A2)	Moss Trim Lines (B16)
<u></u> Saturation (A3)	Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)

Surface Water Present? Yes <u>X</u> No <u></u> Depth (inches) <u>2</u>	Wetland Hydrology Present? Yes <u>X</u> No <u></u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210114\_WL113\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;">Phalaris arundinacea</td> <td style="text-align: center;">95</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">95 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status						_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">OBL species</td> <td style="width: 10%; text-align: center;">0</td> <td style="width: 10%;">x 1</td> <td style="width: 10%; text-align: center;">0</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">95</td> <td>x 2</td> <td style="text-align: center;">190</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">0</td> <td>x 3</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">0</td> <td>x 4</td> <td style="text-align: center;">0</td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td>x 5</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;">95 (A)</td> <td></td> <td style="text-align: center;">190 (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>2</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">X</td> <td style="width: 95%;">1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;">X</td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;">X</td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	0	x 1	0	FACW species	95	x 2	190	FAC species	0	x 3	0	FACU species	0	x 4	0	UPL species	0	x 5	0	Column Totals	95 (A)		190 (B)	Prevalence Index = B/A = <u>2</u>				X	1- Rapid Test For Hydrophytic Vegetation	X	2- Dominance Test is > 50%	X	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210114\_WL113\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-2	10YR 3/1	100						Clay Loam	
2-12	10YR 6/1	80	7.5YR 4/6	20	C	M		Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/14/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: 1\_20210114\_WL113\_W2  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR R Lat: 43.105521 Long: -78.243403 Datum: NAD83  
 Soil Map Unit Name: Ma Madalin silty clay loam, 0 to 3 percent slopes NWI Classification: PSS  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL113</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	Drainage Patterns (B10)
_____ Water-Stained Leaves (B9)	Moss Trim Lines (B16)
_____ High Water Table (A2)	Dry-Season Water Table (C2)
_____ Saturation (A3)	Crayfish Burrows (C8)
_____ Water Marks (B1)	Saturation Visible in Aerial Imagery (C9)
_____ Sediment Deposits (B2)	Stunted or Stressed Plants (D1)
_____ Drift Deposits (B3)	<u>X</u> Geomorphic Position (D2)
_____ Algal Mat or Crust (B4)	Shallow Aquitard (D3)
_____ Iron Deposits (B5)	Microtopographic Relief (D4)
_____ Inundation Visible on Aerial Imagery (B7)	<u>X</u> FAC-Neutral Test (D5)
_____ Sparsely Vegetated Concave Surface (B8)	

Surface Water Present? Yes <u>X</u> No _____ Depth (inches) <u>4</u>	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: 1\_20210114\_WL113\_W2

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
				_____ = Total Cover
<b>Shrub Stratum</b> (Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Cornus amomum</u>	65	X	FACW	
<u>Populus deltoides</u>	40	X	FAC	
				_____ = Total Cover
<b>Herb Stratum</b> (Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Agrostis stolonifera</u>	15	X	FACW	
<u>Symphotrichum lateriflorum</u>	10	X	FAC	
				_____ = Total Cover
<b>Woody Vine Stratum</b> (Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	
				_____ = Total Cover

**Dominance Test Worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant Species Across All Strata: 4 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index Worksheet:**  

OBL species	<u>0</u>	x 1	<u>0</u>	
FACW species	<u>80</u>	x 2	<u>160</u>	
FAC species	<u>50</u>	x 3	<u>150</u>	
FACU species	<u>0</u>	x 4	<u>0</u>	
UPL species	<u>0</u>	x 5	<u>0</u>	
Column Totals	<u>130</u>	(A)	<u>310</u>	(B)
Prevalence Index = B/A =			<u>2.38</u>	

**Hydrophytic Vegetation Indicators:**  
         1- Rapid Test For Hydrophytic Vegetation  
X 2- Dominance Test is > 50%  
X 3- Prevalence Index is =< 3.0  
         4- Morphological Adaptations  
         5- Problematic Hydrophytic Vegetation

**Definitions of Vegetation Strata:**  
 Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.  
 Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.  
 Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.  
 Woody Vines- All woody vines greater than 3.28ft in height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210114\_WL113\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	10YR 2/1	100						Sandy Clay Loam	
3-8	7.5YR 6/1	75	7.5YR 4/6	25	C	M		Clay Loam	
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<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/14/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20210114\_WL113\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): None Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR R Lat: 43.105436 Long: -78.242227 Datum: NAD83  
 Soil Map Unit Name: Ma Madalin silty clay loam, 0 to 3 percent slopes NWI Classification: UPL  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>_____</u> Surface Water (A1)	<u>_____</u> Drainage Patterns (B10)
<u>_____</u> High Water Table (A2)	<u>_____</u> Moss Trim Lines (B16)
<u>_____</u> Saturation (A3)	<u>_____</u> Dry-Season Water Table (C2)
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<u>_____</u> Iron Deposits (B5)	<u>_____</u> Shallow Aquitard (D3)
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Microtopographic Relief (D4)
<u>_____</u> Sparsely Vegetated Concave Surface (B8)	<u>_____</u> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210114\_WL113\_U1

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## SOIL

Sampling Point: 1\_20210114\_WL113\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 3/2	100						Clay Loam	
6-14	10YR 3/2	90	10YR 4/2	10	C	M		Clay Loam	
14-20	2.5Y 6/1	75	7.5YR 4/6	25	C	M		Clay	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <input checked="" type="checkbox"/> X	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/14/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: WL114\_W1  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 2 - 5  
 Subregion (LRR or MLRA): LRR R Lat: 43.110617 Long: -78.196939 Datum: NAD83  
 Soil Map Unit Name: Ld Lamson very fine sandy loam NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL114</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **WL114\_W1**

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: **WL114\_W1**

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	10YR 3/2	100						Sandy Loam	
3-16	10YR 4/2	85	10YR 4/4	15	C	M		Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/14/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20210114\_WL114\_W2  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR R Lat: 43.110749 Long: -78.197205 Datum: NAD83  
 Soil Map Unit Name: Ld Lamson very fine sandy loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL114</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: 1\_20210114\_WL114\_W2

<b>Tree Stratum</b>		(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
<u>Populus deltoides</u>	<u>75</u>	<u>X</u>	<u>FAC</u>				
<u>Fraxinus pennsylvanica</u>	<u>15</u>		<u>FACW</u>				
	<u>90</u>	<u>= Total Cover</u>					
<b>Shrub Stratum</b>		(Plot Size: <u>15'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index Worksheet:</b>  OBL species <u>0</u> x 1 <u>0</u> FACW species <u>35</u> x 2 <u>70</u> FAC species <u>90</u> x 3 <u>270</u> FACU species <u>0</u> x 4 <u>0</u> UPL species <u>0</u> x 5 <u>0</u> Column Totals <u>125</u> (A) <u>340</u> (B)  Prevalence Index = B/A = <u>2.72</u>	
<u>Cornus amomum</u>	<u>20</u>	<u>X</u>	<u>FACW</u>				
<u>Rhamnus cathartica</u>	<u>15</u>	<u>X</u>	<u>FAC</u>				
	<u>35</u>	<u>= Total Cover</u>					
<b>Herb Stratum</b>		(Plot Size: <u>5'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>  <u>1-</u> Rapid Test For Hydrophytic Vegetation <u>X</u> <u>2-</u> Dominance Test is > 50% <u>X</u> <u>3-</u> Prevalence Index is =< 3.0 <u>4-</u> Morphological Adaptations <u>5-</u> Problematic Hydrophytic Vegetation	
			<u>= Total Cover</u>				
<b>Woody Vine Stratum</b>		(Plot Size: <u>30'</u> radius )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Definitions of Vegetation Strata:</b>  Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.  Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.  Woody Vines- All woody vines greater than 3.28ft in height.	
			<u>= Total Cover</u>				
						Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210114\_WL114\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-6	10YR 3/2	100						Sandy Loam	
6-18	10YR 4/1	90	10YR 4/6	10	C	M		Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/14/2021  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20210114\_WL114\_W3  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Linear Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR R Lat: 43.111123 Long: -78.197929 Datum: NAD83  
 Soil Map Unit Name: HIB Hilton loam, 3 to 8 percent slopes NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL114</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u></u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u>X</u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	Wetland Hydrology Present? Yes <u>X</u> No <u></u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210114\_WL114\_W3

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus amomum</u></td> <td style="text-align: center;"><u>30</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td><u>Rhamnus cathartica</u></td> <td style="text-align: center;"><u>10</u></td> <td></td> <td style="text-align: center;"><u>FAC</u></td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Symphyotrichum lanceolatum</u></td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACW</u></td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Cornus amomum</u>	<u>30</u>	<u>X</u>	<u>FACW</u>	<u>Fraxinus pennsylvanica</u>	<u>25</u>	<u>X</u>	<u>FACW</u>	<u>Rhamnus cathartica</u>	<u>10</u>		<u>FAC</u>	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Symphyotrichum lanceolatum</u>	<u>10</u>	<u>X</u>	<u>FACW</u>	<u>Solidago canadensis</u>	<u>5</u>	<u>X</u>	<u>FACU</u>	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>4</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>65</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>130</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>80</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>180</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.25</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>      </u> 1- Rapid Test For Hydrophytic Vegetation  <u>  X  </u> 2- Dominance Test is &gt; 50%  <u>  X  </u> 3- Prevalence Index is =&lt; 3.0  <u>      </u> 4- Morphological Adaptations  <u>      </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>  X  </u> No <u>      </u> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>65</u>	x 2	<u>130</u>	FAC species	<u>10</u>	x 3	<u>30</u>	FACU species	<u>5</u>	x 4	<u>20</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>80</u>	(A)	<u>180</u> (B)	Prevalence Index = B/A =			<u>2.25</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210114\_WL114\_W3

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 3/2	95	7.5YR 4/6	5	C	M	Sandy Clay Loam		
4-16	7.5YR 6/2	80	7.5YR 4/6	20	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/14/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: WL114\_U1  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 5 - 10  
 Subregion (LRR or MLRA): LRR R Lat: 43.110560 Long: -78.197036 Datum: NAD83  
 Soil Map Unit Name: OnB Ontario loam, 3 to 8 percent slopes NWI Classification: UPL  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **WL114\_U1**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; margin-top: 10px;"> <tr> <th style="width: 35%;">Absolute % Cover</th> <th style="width: 35%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td style="height: 40px; vertical-align: bottom;">_____</td> <td style="vertical-align: bottom;">_____</td> <td style="vertical-align: bottom;">_____</td> </tr> <tr> <td colspan="3" style="text-align: right; padding-top: 5px;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; margin-top: 10px;"> <tr> <th style="width: 35%;">Absolute % Cover</th> <th style="width: 35%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td style="height: 40px; vertical-align: bottom;">_____</td> <td style="vertical-align: bottom;">_____</td> <td style="vertical-align: bottom;">_____</td> </tr> <tr> <td colspan="3" style="text-align: right; padding-top: 5px;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; margin-top: 10px;"> <tr> <th style="width: 35%;">Absolute % Cover</th> <th style="width: 35%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td style="height: 40px; vertical-align: bottom;"> <u>Phalaris arundinacea</u>      85      X      FACW  <u>Solidago canadensis</u>      15           FACU                 </td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: right; padding-top: 5px;">100 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; margin-top: 10px;"> <tr> <th style="width: 35%;">Absolute % Cover</th> <th style="width: 35%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> <tr> <td style="height: 40px; vertical-align: bottom;">_____</td> <td style="vertical-align: bottom;">_____</td> <td style="vertical-align: bottom;">_____</td> </tr> <tr> <td colspan="3" style="text-align: right; padding-top: 5px;">_____ = Total Cover</td> </tr> </table> </div>	Absolute % Cover	Dominant Species?	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Indicator Status	_____	_____	_____	_____ = Total Cover			<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">OBL species</td> <td style="width: 10%; text-align: center;"><u>0</u></td> <td style="width: 10%; text-align: center;">x 1</td> <td style="width: 50%; text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>85</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>170</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>100</u> (A)</td> <td></td> <td style="text-align: center;"><u>230</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center; padding-top: 5px;">Prevalence Index = B/A = <u>2.3</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;"><u>X</u></td> <td style="width: 95%;">1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td style="text-align: center;">_____</td> <td>4- Morphological Adaptations</td> </tr> <tr> <td style="text-align: center;">_____</td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; padding-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>85</u>	x 2	<u>170</u>	FAC species	<u>0</u>	x 3	<u>0</u>	FACU species	<u>15</u>	x 4	<u>60</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>100</u> (A)		<u>230</u> (B)	Prevalence Index = B/A = <u>2.3</u>				<u>X</u>	1- Rapid Test For Hydrophytic Vegetation	<u>X</u>	2- Dominance Test is > 50%	<u>X</u>	3- Prevalence Index is =< 3.0	_____	4- Morphological Adaptations	_____	5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: **WL114\_U1**

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-20	10YR 3/2	98	10YR 4/4	2	C	M	Sandy Loam		
<div><div><b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)</div><div><input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)</div><div><b>Indicators for Problematic Soils:</b> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)</div></div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <input checked="" type="checkbox"/> X _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: 1\_20210115\_WL115\_W1  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 2 - 5  
 Subregion (LRR or MLRA): LRR R Lat: 43.094836 Long: -78.253690 Datum: NAD83  
 Soil Map Unit Name: Ma Madalin silty clay loam, 0 to 3 percent slopes NWI Classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL115</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Sparsely Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 1  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches) 6  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210115\_WL115\_W1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;">Unknown species</td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UNK</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status	Unknown species	5	X	UNK		_____ = Total Cover				Absolute % Cover	Dominant Species?	Indicator Status						_____ = Total Cover			<div> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)                      Total Number of Dominant Species Across All Strata: <u>1</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)                 </div> <hr/> <div> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">OBL species</td> <td style="width: 10%; text-align: center;"><u>0</u></td> <td style="width: 10%; text-align: center;">x 1</td> <td style="width: 10%; text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>0</u> (B)</td> </tr> </table>                     Prevalence Index = B/A = <u>0</u> </div> <hr/> <div> <b>Hydrophytic Vegetation Indicators:</b>  <u>        </u> 1- Rapid Test For Hydrophytic Vegetation  <u>        </u> 2- Dominance Test is &gt; 50%  <u>        </u> 3- Prevalence Index is =&lt; 3.0  <u>        </u> 4- Morphological Adaptations  <u>        </u> 5- Problematic Hydrophytic Vegetation                 </div> <hr/> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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 Remarks: (Include photo numbers here or on a separate sheet.)  
 disturbed agricultural field, recent vegetation clearing. Trace amounts of grass present.

## SOIL

Sampling Point: 1\_20210115\_WL115\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 3/1	100						Sandy Loam	
4-16	10YR 4/1	95	10YR 4/4	5	C	M		Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: 1\_20210115\_WL115\_W2  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): None Slope (%) 2 - 5  
 Subregion (LRR or MLRA): LRR R Lat: 43.094665 Long: -78.253044 Datum: NAD83  
 Soil Map Unit Name: Ma Madalin silty clay loam, 0 to 3 percent slopes NWI Classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes <u>X</u> No _____ Depth (inches) <u>8</u>	
Saturation Present? Yes <u>X</u> No _____ Depth (inches) <u>6</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210115\_WL115\_W2

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">80</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">80</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lonicera morrowii</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Unknown species</u></td> <td style="text-align: center;">50</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UNK</td> </tr> <tr> <td><u>Lysimachia nummularia</u></td> <td style="text-align: center;">7</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Heracleum maximum</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fragaria virginiana</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">70</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____						= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                      Total Number of Dominant Species Across All Strata: <u>3</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>92</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>184</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>43</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>172</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>140</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>371</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.65</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <div style="margin-bottom: 5px;">_____ 1- Rapid Test For Hydrophytic Vegetation</div> <div style="margin-bottom: 5px;">_____ 2- Dominance Test is &gt; 50%</div> <div style="margin-bottom: 5px;"><u>X</u> 3- Prevalence Index is =&lt; 3.0</div> <div style="margin-bottom: 5px;">_____ 4- Morphological Adaptations</div> <div style="margin-bottom: 5px;">_____ 5- Problematic Hydrophytic Vegetation</div> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. 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 Remarks: (Include photo numbers here or on a separate sheet.)  
 Species of grass unidentifiable in field

## SOIL

Sampling Point: 1\_20210115\_WL115\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-10	10YR 3/1	90	7.5YR 4/4	10	C	M	Clay Loam		
10-18	10YR 4/1	80	7.5YR 4/4	20	C	M	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20210115\_WL115\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 8  
 Subregion (LRR or MLRA): LRR R Lat: 43.094482 Long: -78.253655 Datum: NAD83  
 Soil Map Unit Name: RoA Rhinebeck silt loam, 0 to 3 percent slopes NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation X, Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> if yes, optional Wetland Site ID: <u></u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u></u> No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u></u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u></u> Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u></u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	Wetland Hydrology Present? Yes <u></u> No <u>X</u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210115\_WL115\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;">Zea mays</td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">15 = Total Cover</td> </tr> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210115\_WL115\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/3	99	10YR 4/6	1	C	M	Clay Loam		
12-20	2.5Y 5/3	60	10YR 4/6	40	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <input checked="" type="checkbox"/> X		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20210115\_WL116\_W1  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 2 - 5  
 Subregion (LRR or MLRA): LRR R Lat: 43.092629 Long: -78.256065 Datum: NAD83  
 Soil Map Unit Name: Te Teel silt loam NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL116</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Drainage Patterns (B10)
<u>X</u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Stunted or Stressed Plants (D1)
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<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u></u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u>X</u> No <u></u> Depth (inches) <u>2</u>	Wetland Hydrology Present? Yes <u>X</u> No <u></u>
Water Table Present? Yes <u>X</u> No <u></u> Depth (inches) <u>8</u>	
Saturation Present? Yes <u>X</u> No <u></u> Depth (inches) <u>6</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210115\_WL116\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td><u>100</u></td> <td><u>X</u></td> <td><u>FACW</u></td> </tr> <tr> <td><u>Xanthium strumarium</u></td> <td><u>5</u></td> <td></td> <td><u>FAC</u></td> </tr> <tr> <td colspan="4" style="text-align: right;"><u>105</u> = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	<u>Phalaris arundinacea</u>	<u>100</u>	<u>X</u>	<u>FACW</u>	<u>Xanthium strumarium</u>	<u>5</u>		<u>FAC</u>	<u>105</u> = Total Cover					Absolute % Cover	Dominant Species?	Indicator Status	_____	_____	_____	_____	_____ = Total Cover				<p><b>Dominance Test Worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>1</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)</p> <hr/> <p><b>Prevalence Index Worksheet:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>100</u></td> <td>x 2</td> <td><u>200</u></td> </tr> <tr> <td>FAC species</td> <td><u>5</u></td> <td>x 3</td> <td><u>15</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td><u>105</u></td> <td>(A)</td> <td><u>215</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>2.05</u></td> </tr> </table> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><u>X</u> 1- Rapid Test For Hydrophytic Vegetation</p> <p><u>X</u> 2- Dominance Test is &gt; 50%</p> <p><u>X</u> 3- Prevalence Index is =&lt; 3.0</p> <p>_____ 4- Morphological Adaptations</p> <p>_____ 5- Problematic Hydrophytic Vegetation</p> <hr/> <p><b>Definitions of Vegetation Strata:</b></p> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> <hr/> <p style="text-align: center;">Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>100</u>	x 2	<u>200</u>	FAC species	<u>5</u>	x 3	<u>15</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>105</u>	(A)	<u>215</u> (B)	Prevalence Index = B/A =			<u>2.05</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210115\_WL116\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-12	10YR 4/1	90	10YR 4/4	10	C	PL	Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20210115\_WL116\_W2  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR R Lat: 43.092738 Long: -78.255911 Datum: NAD83  
 Soil Map Unit Name: Te Teel silt loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL116</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u></u> Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u></u> FAC-Neutral Test (D5)

Surface Water Present? Yes X No  Depth (inches) 4  
 Water Table Present? Yes  No X Depth (inches)   
 Saturation Present? Yes  No X Depth (inches)

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210115\_WL116\_W2

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">75</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">75</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Lysimachia nummularia</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Symphytotrichum lanceolatum</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Cinna arundinacea</u></td> <td style="text-align: center;">6</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Verbena hastata</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Ranunculus hispidus</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Heracleum maximum</u></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">52</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	_____						= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)                      Total Number of Dominant Species Across All Strata: <u>4</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>124</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>248</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>3</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>9</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>127</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>257</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.02</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;"><u>X</u></td> <td style="width: 95%;">1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td></td> <td>4- Morphological Adaptations</td> </tr> <tr> <td></td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>124</u>	x 2	<u>248</u>	FAC species	<u>3</u>	x 3	<u>9</u>	FACU species	<u>0</u>	x 4	<u>0</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>127</u>	(A)	<u>257</u> (B)	Prevalence Index = B/A =			<u>2.02</u>	<u>X</u>	1- Rapid Test For Hydrophytic Vegetation	<u>X</u>	2- Dominance Test is > 50%	<u>X</u>	3- Prevalence Index is =< 3.0		4- Morphological Adaptations		5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210115\_WL116\_W2

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-7	10YR 3/1	90	10YR 4/3	10	C	M	Clay Loam	
7-16	10YR 4/1	80	10YR 4/4	20	C	M	Sandy Clay Loam	

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20210115\_WL116\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 2 - 4  
 Subregion (LRR or MLRA): LRR R Lat: 43.092854 Long: -78.255870 Datum: NAD83  
 Soil Map Unit Name: NgA Niagara silt loam, 0 to 2 percent slopes NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Field edge	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
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Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210115\_WL116\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Acer saccharum</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td></td> <td style="text-align: center;">40</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Setaria pumila</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Daucus carota</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Taraxacum officinale</u></td> <td style="text-align: center;">5</td> <td> </td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Brassica rapa</u></td> <td style="text-align: center;">5</td> <td> </td> <td style="text-align: center;">UPL</td> </tr> <tr> <td><u>Lysimachia nummularia</u></td> <td style="text-align: center;">5</td> <td> </td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Symphotrichum lanceolatum</u></td> <td style="text-align: center;">5</td> <td> </td> <td style="text-align: center;">FACW</td> </tr> <tr> <td> </td> <td style="text-align: center;">75</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">10</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td> </td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Vitis riparia</u>	10	X	FAC		10	= Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>6</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)</p> </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>30</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>90</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>70</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>280</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>15</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>125</u> (A)</td> <td> </td> <td style="text-align: center;"><u>465</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.72</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b> <ol style="list-style-type: none"> <li><u>  </u> 1- Rapid Test For Hydrophytic Vegetation</li> <li><u>  </u> 2- Dominance Test is &gt; 50%</li> <li><u>  </u> 3- Prevalence Index is =&lt; 3.0</li> <li><u>  </u> 4- Morphological Adaptations</li> <li><u>  </u> 5- Problematic Hydrophytic Vegetation</li> </ol> </div> <div> <b>Definitions of Vegetation Strata:</b> <p>Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.</p> <p>Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.</p> <p>Woody Vines- All woody vines greater than 3.28ft in height.</p> </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>10</u>	x 2	<u>20</u>	FAC species	<u>30</u>	x 3	<u>90</u>	FACU species	<u>70</u>	x 4	<u>280</u>	UPL species	<u>15</u>	x 5	<u>75</u>	Column Totals	<u>125</u> (A)		<u>465</u> (B)	Prevalence Index = B/A =			<u>3.72</u>
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 Remarks: (Include photo numbers here or on a separate sheet.)  
 daucus carota = Zea mays

## SOIL

Sampling Point: 1\_20210115\_WL116\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-9	10YR 4/3	100						Sandy Loam	
9-20	10YR 4/3	98	10YR 5/6	2	C	M		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <input checked="" type="checkbox"/> X	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20200115\_WL117\_W1  
 Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%) 1 - 3  
 Subregion (LRR or MLRA): LRR R Lat: 43.092216 Long: -78.255353 Datum: NAD83  
 Soil Map Unit Name: Te Teel silt loam NWI Classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL117</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u></u> Surface Water (A1)	<u></u> Water-Stained Leaves (B9)	<u></u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Aquatic Fauna (B13)	<u></u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Marl Deposits (B15)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Hydrogen Sulfide Odor (C1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u></u> Oxidized Rhizospheres on Living Roots (C3)	<u></u> Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	<u></u> Presence of Reduced Iron (C4)	<u></u> Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	<u></u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	<u></u> Thin Muck Surface (C7)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Other (Explain in Remarks)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)		<u>X</u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	Wetland Hydrology Present? Yes <u>X</u> No <u></u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: 1\_20200115\_WL117\_W1

<b>Tree Stratum</b> (Plot Size: 30'radius )		Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>				
<u>Fraxinus pennsylvanica</u>		50	X	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)				
		50	= Total Cover			Total Number of Dominant Species Across All Strata: 4 (B)			
					Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)				
<b>Shrub Stratum</b> (Plot Size: 15'radius )		Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index Worksheet:</b>				
<u></u>					OBL species 0 x 1 0				
<u></u>					FACW species 95 x 2 190				
<u></u>					FAC species 5 x 3 15				
<u></u>					FACU species 13 x 4 52				
<u></u>					UPL species 0 x 5 0				
<u></u>					Column Totals 113 (A) 257 (B)				
					Prevalence Index = B/A = 2.27				
<b>Herb Stratum</b> (Plot Size: 5'radius )		Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>				
<u>Lysimachia nummularia</u>		15	X	FACW	<u>X</u> 1- Rapid Test For Hydrophytic Vegetation				
<u>Cinna arundinacea</u>		15	X	FACW	<u>X</u> 2- Dominance Test is > 50%				
<u>Symphotrichum lanceolatum</u>		15	X	FACW	<u>X</u> 3- Prevalence Index is =< 3.0				
<u>Alliaria petiolata</u>		10		FACU	<u></u> 4- Morphological Adaptations				
<u>Geum canadense</u>		5		FAC	<u></u> 5- Problematic Hydrophytic Vegetation				
<u>Galium mollugo</u>		3		FACU					
		63	= Total Cover			<b>Definitions of Vegetation Strata:</b>			
					Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.				
					Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.				
					Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.				
<b>Woody Vine Stratum</b> (Plot Size: 30'radius )		Absolute % Cover	Dominant Species?	Indicator Status	Woody Vines- All woody vines greater than 3.28ft in height.				
<u></u>					Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>				
<u></u>									

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20200115\_WL117\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-3	10YR 3/2	100						Sandy Clay Loam	
3-12	10YR 3/1	100						Sandy Clay Loam	
12-20	10YR 4/1	92	10YR 4/6	8	C	M		Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20210115\_WL117\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 3 - 8  
 Subregion (LRR or MLRA): LRR R Lat: 43.092320 Long: -78.255284 Datum: NAD83  
 Soil Map Unit Name: Te Teel silt loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

raised berm between stream and PFO wetland to south

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
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<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present? Yes _____ No <u>X</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: 1\_20210115\_WL117\_U1

<b>Tree Stratum</b> (Plot Size: <u>30'</u> radius )  <u>Fraxinus pennsylvanica</u>  <div style="text-align: right;">             Absolute % Cover    Dominant Species?    Indicator Status              50                      X                  FACW  <hr/>             50 = Total Cover           </div>	<b>Dominance Test Worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																												
<b>Shrub Stratum</b> (Plot Size: <u>15'</u> radius )  <u>Crataegus douglasii</u>  <div style="text-align: right;">             Absolute % Cover    Dominant Species?    Indicator Status              15                      X                  FAC  <hr/>             15 = Total Cover           </div>	<b>Prevalence Index Worksheet:</b>  <table style="width: 100%;"> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>54</u></td> <td>x 2</td> <td><u>108</u></td> </tr> <tr> <td>FAC species</td> <td><u>15</u></td> <td>x 3</td> <td><u>45</u></td> </tr> <tr> <td>FACU species</td> <td><u>75</u></td> <td>x 4</td> <td><u>300</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td><u>144</u></td> <td>(A)</td> <td><u>453</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td><u>3.15</u></td> </tr> </table>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>54</u>	x 2	<u>108</u>	FAC species	<u>15</u>	x 3	<u>45</u>	FACU species	<u>75</u>	x 4	<u>300</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>144</u>	(A)	<u>453</u> (B)	Prevalence Index = B/A =			<u>3.15</u>
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Prevalence Index = B/A =			<u>3.15</u>																										
<b>Herb Stratum</b> (Plot Size: <u>5'</u> radius )  <u>Alliaria petiolata</u> <u>Galium mollugo</u> <u>Ageratina altissima</u> <u>Hesperis matronalis</u> <u>Lysimachia nummularia</u>  <div style="text-align: right;">             Absolute % Cover    Dominant Species?    Indicator Status              30                      X                  FACU              20                      X                  FACU              15                                      FACU              10                                      FACU              4                                         FACW  <hr/>             79 = Total Cover           </div>	<b>Hydrophytic Vegetation Indicators:</b>  <u>1- Rapid Test For Hydrophytic Vegetation</u> <u>2- Dominance Test is &gt; 50%</u> <u>3- Prevalence Index is =&lt; 3.0</u> <u>4- Morphological Adaptations</u> <u>5- Problematic Hydrophytic Vegetation</u>																												
<b>Woody Vine Stratum</b> (Plot Size: <u>30'</u> radius )  <div style="text-align: right;">             Absolute % Cover    Dominant Species?    Indicator Status  <hr/>             _____ = Total Cover           </div>	<b>Definitions of Vegetation Strata:</b>  Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.  Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.  Woody Vines- All woody vines greater than 3.28ft in height.  <div style="text-align: center;">             Hydrophytic Vegetation Present?              Yes _____ No <u>X</u> </div>																												

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210115\_WL117\_U1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-11	10YR 3/2	100						Loam	
11-14	10YR 4/3	98	10YR 4/4	2	C	M		Sandy Loam	
14-20	10YR 5/2	90	7.5YR 4/6	10	C	M		Sandy Clay Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes _____ No <input checked="" type="checkbox"/> X	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 1\_20210115\_WL118\_W1  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
 Subregion (LRR or MLRA): LRR R Lat: 43.093275 Long: -78.257054 Datum: NAD83  
 Soil Map Unit Name: Te Teel silt loam NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL118</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

floodplain wetland, adjacent to stream

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No <u>X</u> Depth (inches) _____	Wetland Hydrology Present? Yes <u>X</u> No _____
Water Table Present? Yes <u>X</u> No _____ Depth (inches) <u>6</u>	
Saturation Present? Yes <u>X</u> No _____ Depth (inches) <u>4</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210115\_WL118\_W1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Lysimachia nummularia</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Verbena hastata</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Ageratina altissima</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210115\_WL118\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 3/2	100						Sandy Loam	
8-16	10YR 4/1	95	10YR 4/4	5	C	M		Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____								Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____	
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20210115\_WL118\_U1  
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope (%) 2 - 5  
 Subregion (LRR or MLRA): LRR R Lat: 43.093315 Long: -78.257176 Datum: NAD83  
 Soil Map Unit Name: Te Teel silt loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> if yes, optional Wetland Site ID: <u></u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u></u> No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u></u> Surface Water (A1)	<u></u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Dry-Season Water Table (C2)
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<u></u> Sediment Deposits (B2)	<u></u> Saturation Visible in Aerial Imagery (C9)
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<u></u> Iron Deposits (B5)	<u></u> Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	<u></u> Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)	<u></u> FAC-Neutral Test (D5)

Surface Water Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	Wetland Hydrology Present? Yes <u></u> No <u>X</u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210115\_WL118\_U1

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">60</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Hesperis matronalis</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Galium mollugo</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Lysimachia nummularia</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210115\_WL118\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-20	10YR 3/2	100					Sandy Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <input checked="" type="checkbox"/> X	
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20210115\_WL119\_W1  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): None Slope (%) 0 - 2  
 Subregion (LRR or MLRA): LRR R Lat: 43.096530 Long: -78.257159 Datum: NAD83  
 Soil Map Unit Name: CIB Collamer silt loam NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation X, Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> if yes, optional Wetland Site ID: <u>WL119</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks: (Explain alternative procedures here or in a separate report.)

edge of agricultural field (corn)

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	Drainage Patterns (B10)
<u></u> High Water Table (A2)	Moss Trim Lines (B16)
<u></u> Saturation (A3)	Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	Saturation Visible in Aerial Imagery (C9)
<u></u> Drift Deposits (B3)	Stunted or Stressed Plants (D1)
<u></u> Algal Mat or Crust (B4)	Geomorphic Position (D2)
<u></u> Iron Deposits (B5)	Shallow Aquitard (D3)
<u></u> Inundation Visible on Aerial Imagery (B7)	Microtopographic Relief (D4)
<u></u> Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)

Surface Water Present? Yes <u>X</u> No <u></u> Depth (inches) <u>2</u>	Wetland Hydrology Present? Yes <u>X</u> No <u></u>
Water Table Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	
Saturation Present? Yes <u></u> No <u>X</u> Depth (inches) <u></u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210115\_WL119\_W1

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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 1\_20210115\_WL119\_W1

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-8	10YR 4/1	85	7.5YR 4/4	15	C	M	Sandy Clay Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cider Solar Project City/County: Elba/Genessee Sampling Date: 1/15/2021  
 Applicant/Owner: Hecate State: NY Sampling Point:   
 Investigator(s): Andrew Sorci Section, Township, Range:  1\_20210115\_WL119\_U1  
 Landform (hillslope, terrace, etc.): Side Slope Local relief (concave, convex, none): Convex Slope (%) 5 - 25  
 Subregion (LRR or MLRA): LRR R Lat: 43.096595 Long: -78.257183 Datum: NAD83  
 Soil Map Unit Name: CLB, Collamer silt loam NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (if no, explain in Remarks.)  
 Are Vegetation X, Soil X, or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (if needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> if yes, optional Wetland Site ID: <u></u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u></u> No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

edge of ag field and highway

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<u></u> Surface Water (A1)	<u></u> Drainage Patterns (B10)
<u></u> High Water Table (A2)	<u></u> Moss Trim Lines (B16)
<u></u> Saturation (A3)	<u></u> Dry-Season Water Table (C2)
<u></u> Water Marks (B1)	<u></u> Crayfish Burrows (C8)
<u></u> Sediment Deposits (B2)	<u></u> Saturation Visible in Aerial Imagery (C9)
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: 1\_20210115\_WL119\_U1

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Unknown species</u></td> <td style="text-align: center;"><u>100</u></td> <td style="text-align: center;"><u>X</u></td> <td style="text-align: center;"><u>UNK</u></td> </tr> <tr> <td><u>Taraxacum officinale</u></td> <td style="text-align: center;"><u>10</u></td> <td></td> <td style="text-align: center;"><u>FACU</u></td> </tr> <tr> <td></td> <td style="text-align: center;"><u>110</u></td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black; height: 40px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass species - unidentifiable in field (mowed, off-season)

## SOIL

Sampling Point: 1\_20210115\_WL119\_U1

Depth (inches)	Matrix		Redox Features					Remarks
	Color	%	Color	%	Type	Loc	Texture	
0-5	10YR 2/2	100					Sandy Loam	
5-15	10YR 3/2	100					Loamy Sand	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b> <div> Type: Gravel Fill </div> <div> Depth (inches): 15 </div>							Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:								

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Oakfield/Genesee Sampling Date: 9/29/2020  
 Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
 Investigator(s): Andrew Sorci Section, Township, Range: \_\_\_\_\_ 02-20200721\_WL40\_W2  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 5  
 Subregion (LRR or MLRA): LRR L Lat: 43.098734 Long: -78.204117 Datum: NAD83  
 Soil Map Unit Name: Ld: Lamson very fine sandy loam NWI Classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL92</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200721\_WL40\_W2

<p><b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Cornus amomum</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Salix nigra</u></td> <td style="text-align: center;">25</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">85 = Total Cover</td> </tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Symphotrichum puniceum</u></td> <td style="text-align: center;">40</td> <td style="text-align: center;">X</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Unknown species</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">UNK</td> </tr> <tr> <td><u>Solidago canadensis</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">65 = Total Cover</td> </tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 30%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Vitis riparia</u></td> <td style="text-align: center;">5</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td colspan="4" style="text-align: right;">5 = Total Cover</td> </tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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 Remarks: (Include photo numbers here or on a separate sheet.)  
 unknown grass species

## SOIL

Sampling Point: 02-20200721\_WL40\_W2

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-20	10YR 3/1	90	10YR 4/6	10	C	M	Sandy Loam		
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>									
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes <input checked="" type="checkbox"/> No _____		
Remarks:									

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/21/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200721-WL-40-40W  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%) 0 - 1  
Subregion (LRR or MLRA): LRR L Lat: 43.095326 Long: -78.215260 Datum: NAD83  
Soil Map Unit Name: HIA: Hilton loam, 0 to 3 percent slopes NWI Classification: PEM  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ if yes, optional Wetland Site ID: <u>WL92</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<u>X</u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	_____ Marl Deposits (B15)	Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible in Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	Microtopographic Relief (D4)
_____ Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches) 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches) 0

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

Sampling Point: 02-20200721-WL-40-40W

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Bidens frondosa</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">30</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Sparganium americanum</u></td> <td style="text-align: center;">15</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Alisma subcordatum</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Ranunculus abortivus</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Asclepias incarnata</u></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">OBL</td> </tr> <tr> <td><u>Abutilon theophrasti</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FACU</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ 97 = Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Echinocystis lobata</u></td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td colspan="4" style="text-align: right;">_____ 2 = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	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Indicator Status	<u>Echinocystis lobata</u>	2		FACW	_____ 2 = Total Cover				<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)                      Total Number of Dominant Species Across All Strata: <u>2</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>30</u></td> <td style="text-align: center;">x 1</td> <td style="text-align: center;"><u>30</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>32</u></td> <td style="text-align: center;">x 2</td> <td style="text-align: center;"><u>64</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>35</u></td> <td style="text-align: center;">x 3</td> <td style="text-align: center;"><u>105</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>2</u></td> <td style="text-align: center;">x 4</td> <td style="text-align: center;"><u>8</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>99</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>207</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.09</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>      </u> 1- Rapid Test For Hydrophytic Vegetation  <u>  X  </u> 2- Dominance Test is &gt; 50%  <u>  X  </u> 3- Prevalence Index is =&lt; 3.0  <u>      </u> 4- Morphological Adaptations  <u>      </u> 5- Problematic Hydrophytic Vegetation                 </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: center; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>  X  </u> No <u>      </u> </div>	OBL species	<u>30</u>	x 1	<u>30</u>	FACW species	<u>32</u>	x 2	<u>64</u>	FAC species	<u>35</u>	x 3	<u>105</u>	FACU species	<u>2</u>	x 4	<u>8</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>99</u>	(A)	<u>207</u> (B)	Prevalence Index = B/A =			<u>2.09</u>
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Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 02-20200721-WL-40-40W

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type	Loc	Texture		
0-4	10YR 2/2	95	5Y 2.5/1	5	C	PL	Silt Loam		
4-18	10YR 5/2	95	5Y 2.5/1	5	C	PL	Sandy Loam		
18-24	10YR 5/2	60	10YR 6/8	40	C	PL	Sandy Loam		

**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (B15)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Black Histic (A3)	<input checked="" type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	

**Indicators for Problematic Soils:**

<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Mesic Spodic (TA6)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Other (Explain in Remarks)

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Cider Solar Project City/County: Elba/Genesee Sampling Date: 7/22/2020  
Applicant/Owner: Hecate State: NY Sampling Point: \_\_\_\_\_  
Investigator(s): Justin Ahn Section, Township, Range: \_\_\_\_\_ 02-20200722-WL-41-41W  
Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%) 1 - 5  
Subregion (LRR or MLRA): LRR L Lat: 43.095459 Long: -78.215298 Datum: NAD83  
Soil Map Unit Name: CaA Canandaigua silt loam, 0 to 2 percent slopes NWI Classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (if needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> if yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible in Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> FAC-Neutral Test (D5)
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<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches) \_\_\_\_\_

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION - Use scientific names of plants**

 Sampling Point: **02-20200722-WL-41-41W**

<div style="margin-bottom: 20px;"> <b>Tree Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Populus deltoides</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Shrub Stratum</b> (Plot Size: <u>15'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div> <div style="margin-bottom: 20px;"> <b>Herb Stratum</b> (Plot Size: <u>5'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td><u>Alliaria petiolata</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACU</td> </tr> <tr> <td><u>Phalaris arundinacea</u></td> <td style="text-align: center;">20</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Toxicodendron radicans</u></td> <td style="text-align: center;">15</td> <td style="text-align: center;">X</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td><u>Fraxinus pennsylvanica</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FACW</td> </tr> <tr> <td><u>Geum canadense</u></td> <td style="text-align: center;">10</td> <td></td> <td style="text-align: center;">FAC</td> </tr> <tr> <td></td> <td style="text-align: center;">75</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> </div> <div> <b>Woody Vine Stratum</b> (Plot Size: <u>30'</u>radius )                 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Absolute % Cover</th> <th style="width: 15%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: right;">_____ = Total Cover</td> </tr> </tbody> </table> </div>		Absolute % Cover	Dominant Species?	Indicator Status	<u>Populus deltoides</u>	20	X	FAC		20	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						_____ = Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	<u>Alliaria petiolata</u>	20	X	FACU	<u>Phalaris arundinacea</u>	20	X	FACW	<u>Toxicodendron radicans</u>	15	X	FAC	<u>Fraxinus pennsylvanica</u>	10		FACW	<u>Geum canadense</u>	10		FAC		75	= Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	_____						_____ = Total Cover		<div style="margin-bottom: 20px;"> <b>Dominance Test Worksheet:</b>                      Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                      Total Number of Dominant Species Across All Strata: <u>4</u> (B)                      Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)                 </div> <div style="margin-bottom: 20px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>30</u></td> <td>x 2</td> <td style="text-align: center;"><u>60</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>45</u></td> <td>x 3</td> <td style="text-align: center;"><u>135</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>20</u></td> <td>x 4</td> <td style="text-align: center;"><u>80</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals</td> <td style="text-align: center;"><u>95</u></td> <td>(A)</td> <td style="text-align: center;"><u>275</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>2.89</u></td> </tr> </table> </div> <div style="margin-bottom: 20px;"> <b>Hydrophytic Vegetation Indicators:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td>1- Rapid Test For Hydrophytic Vegetation</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>2- Dominance Test is &gt; 50%</td> </tr> <tr> <td style="text-align: center;"><u>X</u></td> <td>3- Prevalence Index is =&lt; 3.0</td> </tr> <tr> <td style="text-align: center;">_____</td> <td>4- Morphological Adaptations</td> </tr> <tr> <td style="text-align: center;">_____</td> <td>5- Problematic Hydrophytic Vegetation</td> </tr> </table> </div> <div> <b>Definitions of Vegetation Strata:</b>                      Tree- Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.                       Sapling/Shrub- Woody plants less than 3 in. DBH and greater than or equal to 3.28ft (1m) tall.                       Herb- All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28ft tall.                       Woody Vines- All woody vines greater than 3.28ft in height.                 </div> <div style="text-align: right; margin-top: 20px;">                     Hydrophytic Vegetation Present? Yes <u>X</u> No _____                 </div>	OBL species	<u>0</u>	x 1	<u>0</u>	FACW species	<u>30</u>	x 2	<u>60</u>	FAC species	<u>45</u>	x 3	<u>135</u>	FACU species	<u>20</u>	x 4	<u>80</u>	UPL species	<u>0</u>	x 5	<u>0</u>	Column Totals	<u>95</u>	(A)	<u>275</u> (B)	Prevalence Index = B/A =			<u>2.89</u>		1- Rapid Test For Hydrophytic Vegetation	<u>X</u>	2- Dominance Test is > 50%	<u>X</u>	3- Prevalence Index is =< 3.0	_____	4- Morphological Adaptations	_____	5- Problematic Hydrophytic Vegetation
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Remarks: (Include photo numbers here or on a separate sheet.)          																																																																																																							

## SOIL

Sampling Point: 02-20200722-WL-41-41W

Depth (inches)	Matrix		Redox Features				Remarks	
	Color	%	Color	%	Type	Loc		Texture
0-20	10YR 4/3	100					Silt Loam	
<div> <div> <b>Hydric Soil Indicators:</b> <div> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) </div> <div> <input type="checkbox"/> Polyvalue Below Surface (B15) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </div> </div> <div> <b>Indicators for Problematic Soils:</b> <div> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> </div>								
<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____							Hydric Soil Present?    Yes _____ No <u>  X  </u>	
Remarks:								

**CIDER SOLAR FARM  
WETLAND AND STREAM DELINEATION REPORT AND FUNCTION AND VALUE ASSESSMENT**

Appendix F Wetland Function and Value Summary Table

**Appendix F WETLAND FUNCTION AND VALUE SUMMARY  
TABLE**





Appendix F. Wetlands Functions and Values

Feature ID	Size (acres) <sup>1</sup>	Vegetation Characteristics			Hydrologic Characteristics				Buffer (within 100 feet)			Functional Capacity <sup>2</sup>	Principal Functions & Values
		Forested Component	Multiple Cover Types	Invasive Species Observed	Associated Perennial Stream	Associated Intermittent Stream	Surface Water Other Than Potential Vernal Pool	Potential Vernal Pool	Forest/ Shrubland	Agriculture	Road/ Development		
WL01	M	X	X	X	-	-	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention; sediment/shoreline stabilization
WL02	M	X	-	X	-	-	X	-	X	X	-	L	sediment/shoreline stabilization; floodflow alteration; nutrient removal/retention/transformation
WL03	S	X	-	X	-	-	X	-	X	X	-	L	sediment/shoreline stabilization; floodflow alteration; nutrient removal/retention/transformation
WL04	M	X	X	X	-	-	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL05	S	X	X	X	-	-	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL06	M	-	-	-	-	-	X	-	X	X	X	L	floodflow alteration
WL07	M	-	X	X	-	X	-	-	X	X	X	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL08	S	-	-	X	-	-	-	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL09	S	-	-	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL10	S	-	-	-	-	-	-	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL11	S	-	-	X	-	-	X	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL12	S	-	-	X	-	-	X	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL13	M	X	X	X	-	-	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention

Feature ID	Size (acres) <sup>1</sup>	Vegetation Characteristics			Hydrologic Characteristics				Buffer (within 100 feet)			Functional Capacity <sup>2</sup>	Principal Functions & Values
		Forested Component	Multiple Cover Types	Invasive Species Observed	Associated Perennial Stream	Associated Intermittent Stream	Surface Water Other Than Potential Vernal Pool	Potential Vernal Pool	Forest/Shrubland	Agriculture	Road/Development		
WL14	S	-	-	-	-	-	X	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL15	S	X	X	X	-	-	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization; wildlife habitat
WL16	S	-	-	X	-	-	-	-	X	X	-	L	sediment toxicant retention;
WL17	M	X	X	X	-	-	X	X	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization; wildlife habitat
WL18	M	X	X	X	-	-	-	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL19	S	-	-	X	-	-	-	-	X	X	-	L	sediment toxicant retention
WL20	M	X	X	X	-	X	X	X	X	X	-	H	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization; wildlife habitat
WL21	S	-	X	X	-		X	-	X	-	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL22	M	X	-	X	X	X	X	-	X	X	-	H	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization; wildlife habitat
WL23	S	X	-	X	-	-	-	-	X	X	-	M	sediment toxicant retention
WL24	M	X	-	X	X	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL25	M	X	-	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL26	M	-	X	X	-	-	-	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation;



Feature ID	Size (acres) <sup>1</sup>	Vegetation Characteristics			Hydrologic Characteristics				Buffer (within 100 feet)			Functional Capacity <sup>2</sup>	Principal Functions & Values
		Forested Component	Multiple Cover Types	Invasive Species Observed	Associated Perennial Stream	Associated Intermittent Stream	Surface Water Other Than Potential Vernal Pool	Potential Vernal Pool	Forest/Shrubland	Agriculture	Road/Development		
WL27	S	X	-	X	X	-	X	-	X	X	X	M	sediment/shoreline stabilization; floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; fish and shellfish habitat; wildlife habitat
WL28	M	X	X	X	X	-	-	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat; sediment/shoreline stabilization
WL29	L	X	X	X	X	-	X	-	X	X	-	H	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization; wildlife habitat; fish and shellfish habitat
WL30	S	-	-	X	-	-	X	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL31	M	X	X	X	X	-	X	-	X	X	-	H	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization; wildlife habitat; fish and shellfish habitat
WL32	S	X	X	X	X	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL33	M	X	X	X	-	X	-	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL34	M	X	-	X	-	X	X	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL35	S	-	-	-	-	-	-	-	X	X	-	L	sediment toxicant retention
WL36	M	X	-	X	-	-	-	X	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL37	S	-	-	-	-	-	-	-	X	X	-	L	sediment toxicant retention
WL38	S	-	-	-	-	-	-	-	X	X	-	L	sediment toxicant retention

Feature ID	Size (acres) <sup>1</sup>	Vegetation Characteristics			Hydrologic Characteristics				Buffer (within 100 feet)			Functional Capacity <sup>2</sup>	Principal Functions & Values
		Forested Component	Multiple Cover Types	Invasive Species Observed	Associated Perennial Stream	Associated Intermittent Stream	Surface Water Other Than Potential Vernal Pool	Potential Vernal Pool	Forest/Shrubland	Agriculture	Road/Development		
WL39	S	X	X	X	-	-	-	X	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL40	M	X	-	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL41	M	X	-	X	-	-	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL42	M	X	-	X	-	-	-	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL43	S	X	X	X	-	-	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL44	M	-	-	X	-	-	-	-	X	X	X	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL45	M	-	-	X	-	X	-	-	X	X	X	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL46	M	X	X	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL47	M	X	X	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL48	S	-	-	X	-	-	-	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL49	M	X	-	X	-	-	-	X	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL50	M	X	X	X	X	-	-	-	X	X	X	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL51	M	X	X	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization

Feature ID	Size (acres) <sup>1</sup>	Vegetation Characteristics			Hydrologic Characteristics				Buffer (within 100 feet)			Functional Capacity <sup>2</sup>	Principal Functions & Values
		Forested Component	Multiple Cover Types	Invasive Species Observed	Associated Perennial Stream	Associated Intermittent Stream	Surface Water Other Than Potential Vernal Pool	Potential Vernal Pool	Forest/Shrubland	Agriculture	Road/Development		
WL52	M	X	X	X	-	X	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL53	M	-	X	X	-	X	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL54	M	X		X	-	X	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL55	M	X	X	X	-	-	-	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization; wildlife habitat
WL56	M	X	-	X	X	-	-	-	X	X	-	M	sediment/shoreline stabilization; floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat; fish and shellfish habitat
WL57	M	X	-	X	-	-	-	X	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL58	M		-	X	X	X	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL59	S	-	-	-	-	-	-	-	X	X	-	L	sediment toxicant retention
WL60	S	-	-	-	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL61	S	-	-	-	-	-	-	-	-	-	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL62	S	X	-	-	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL63	S	-	-	-	-	-	-	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL64	M	X	-	X	-	-	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation

Feature ID	Size (acres) <sup>1</sup>	Vegetation Characteristics			Hydrologic Characteristics				Buffer (within 100 feet)			Functional Capacity <sup>2</sup>	Principal Functions & Values
		Forested Component	Multiple Cover Types	Invasive Species Observed	Associated Perennial Stream	Associated Intermittent Stream	Surface Water Other Than Potential Vernal Pool	Potential Vernal Pool	Forest/Shrubland	Agriculture	Road/Development		
WL65	S	-	-	X	-	-	-	X	-	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL66	M	X	X	-	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL67	M	-	-	-	-	-	-	-	X	X	X	L	sediment toxicant retention
WL68	M	X	-	-	-	-	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL69	S	-	-	-	-	-		-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL70	M	-	-	-	-	-	X	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL71	M	X	-	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL72	S	X	-		X	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL73	L	X	X	X	X	X	-	-	X	X	X	H	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization; wildlife habitat
WL74	S	X	-	-	-	X	-	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL75	S	X	-	-	-	-	-	X	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization; wildlife habitat
WL76	S	-	-	X	-	-	-	-	X	X	-	L	sediment toxicant retention
WL77	M	X	-	-	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization

Feature ID	Size (acres) <sup>1</sup>	Vegetation Characteristics			Hydrologic Characteristics				Buffer (within 100 feet)			Functional Capacity <sup>2</sup>	Principal Functions & Values
		Forested Component	Multiple Cover Types	Invasive Species Observed	Associated Perennial Stream	Associated Intermittent Stream	Surface Water Other Than Potential Vernal Pool	Potential Vernal Pool	Forest/Shrubland	Agriculture	Road/Development		
WL78	M	X	-	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL79	S	X	-	X	-	-	-	-	-	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL80	S	-	-	X	-	-	-	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL81	M	X	X	X	-	-	X	-	X	X	X	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL82	S	-	-	-	-	-	-	-	X	X	-	L	sediment toxicant retention;
WL83	S	-	-	-	-	-	-	-	X	X	-	L	sediment toxicant retention
WL84	S	X	-	X	-	-	-	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL85	M	X	-	X	-	-	-	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL86	M	-	-	X	-	-	-	-	X	X	X	L	sediment toxicant retention
WL87	M	X	-	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL88	S	X	-	X	-	-	-	-	X	X	-	L	sediment toxicant retention
WL89	M	X	X	X	X	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL90	M	X	-	X	-	-	-	-	X	X	-	H	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation

Feature ID	Size (acres) <sup>1</sup>	Vegetation Characteristics			Hydrologic Characteristics				Buffer (within 100 feet)			Functional Capacity <sup>2</sup>	Principal Functions & Values
		Forested Component	Multiple Cover Types	Invasive Species Observed	Associated Perennial Stream	Associated Intermittent Stream	Surface Water Other Than Potential Vernal Pool	Potential Vernal Pool	Forest/Shrubland	Agriculture	Road/Development		
WL91	M	X	X	X	X	-	-	X	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL92	L	X	-	X	-	X	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL93	S	-	-	X	X	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL94	S	X	-	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL95	M	X	-	X	-	-	-	-	X	X	-	H	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL96	M	X	X	X	-	-	X	X	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL97	S	X	-	X	-	-	-	-	X	X	-	L	sediment toxicant retention
WL98	S	-	-	X	-	-	-	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL99	M	X	-	X	-	-	-	X	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; wildlife habitat
WL100	M	X	-	X	X		-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL101	M	X	X	X	-	X	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL102	S	-	-	X	-	-	-	-	-	X	X	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL103	M	X	X	X	-	X	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization

Feature ID	Size (acres) <sup>1</sup>	Vegetation Characteristics			Hydrologic Characteristics				Buffer (within 100 feet)			Functional Capacity <sup>2</sup>	Principal Functions & Values
		Forested Component	Multiple Cover Types	Invasive Species Observed	Associated Perennial Stream	Associated Intermittent Stream	Surface Water Other Than Potential Vernal Pool	Potential Vernal Pool	Forest/Shrubland	Agriculture	Road/Development		
WL104	S	X	-	X	-	-	-	-	X	X	-	L	sediment toxicant retention
WL105	S	-	-	X	-	-	-	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL106	S	-	-	X	-	-	-	-	X	X	-	L	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL107	M	X	-	X	-	-	-	-	X	X	-	M	sediment toxicant retention
WL108	S	-	-	X	-	-	-	-	X	X	-	M	sediment toxicant retention
WL109	S	-	-	X	X	-	X	-	X	X	X	M	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL110	M	-	-	X	-	-	-	-	X	X	X	M	floodflow alteration; sediment toxicant retention
WL111	M	X	-	X	-	-	-	-	X	X	X	M	floodflow alteration; sediment toxicant retention
WL112	M	X	-	X	-	-	-	-	X	X	X	L	floodflow alteration; sediment toxicant retention
WL113	M	-	-	X	-	-	-	-	X	X	-	M	floodflow alteration; sediment toxicant retention
WL114	S	X	X	X	-	-	X	-	X	X	-	M	floodflow alteration; sediment toxicant retention;
WL115	M	X	X	X	-	-	-	-	X	X	-	M	floodflow alteration; nutrient removal/retention/transformation
WL116	S	X	X	X	X	-	-	-	X	X	-	M	sediment/shoreline stabilization; floodflow alteration; nutrient removal/retention/transformation



Feature ID	Size (acres) <sup>1</sup>	Vegetation Characteristics			Hydrologic Characteristics				Buffer (within 100 feet)			Functional Capacity <sup>2</sup>	Principal Functions & Values
		Forested Component	Multiple Cover Types	Invasive Species Observed	Associated Perennial Stream	Associated Intermittent Stream	Surface Water Other Than Potential Vernal Pool	Potential Vernal Pool	Forest/Shrubland	Agriculture	Road/Development		
WL117	M	X	-	X	-	-	-	-	X	X	-	H	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation
WL118	S	-	-	X	X	-	-	-	X	X	-	H	floodflow alteration; sediment toxicant retention; nutrient removal/retention/transformation; sediment/shoreline stabilization
WL119	S	-	-	-	-	-	-	-	X	X	X	L	sediment toxicant retention

<sup>1</sup> Size categories: S = < 1 acres; M = 1 - 11 acres; L = ≥ 12 acres based upon field delineated area

<sup>2</sup> Qualitative assessment of functional capacity based upon wetland and buffer characteristics, and wetland's opportunity to provide assessed functions and values. H= high; M = Medium; L = Low

**CIDER SOLAR FARM  
WETLAND AND STREAM DELINEATION REPORT AND FUNCTION AND VALUE ASSESSMENT**

Appendix G ORES Approved jurisdictional Jurisdiction

**Appendix G ORES APPROVED JURISDICTIONAL  
JURISDICTION**





**Wetlands Jurisdictional Determination  
April 2, 2021**

Pursuant to § 900-1.3(e)(2), Hecate Energy Cider Solar LLC provided a draft wetland delineation report entitled “Wetland and Stream Delineation Report and Function and Value Assessment,” dated November 2020, as well as shapefiles dated submitted March 2021 for Hecate Energy Cider Solar Farm, Genesee County, New York.

Pursuant to § 900-1.3(e)(4), the Office of Renewable Energy Siting (the Office or ORES), in consultation with the New York State Department of Environmental Conservation (NYSDEC), hereby provides in Attachments A and B specific jurisdictional determinations for state regulated wetlands identified in the draft wetland delineation report and shapefiles. The information provided in Attachment A, with the three minor changes noted, together with Attachment B, will be necessary for developing Exhibit 14 (§900-2.15) in support of an application to the Office for a major renewable energy facility.

Please note that this determination only applies to major renewable energy facilities covered by Section 94-c of New York Executive Law and 19 NYCRR Part 900. This determination does not cover other projects, nor does it cover determinations under other applicable federal, state, or local jurisdictions, such as the Army Corps of Engineer’s regulatory program under Section 404 of the Clean Water Act. Please contact those entities regarding their potential regulatory jurisdiction.

This determination is valid for a period of five years from the date of this letter. After five years, determinations and delineations will be considered expired and subject to change until a new determination or delineation is conducted and ORES extends this determination or issues a new jurisdictional determination.

CC: NYSDEC

## Attachment A

### Office of Renewable Energy Siting

Wetland specific jurisdictional determination for wetlands from draft wetland delineation report

Wetland Delineation ID <sup>1</sup>	Acreage	Category <sup>2</sup>	State Wetland ID	Wetland Classification	Changes <sup>3</sup>
01_20200930_WL112	0.522256	Mapped	BN-1	3	
02_20200929_WL39	2.374389	Mapped	BN-4	2	
02_20200929_WL40	0.628514	Unmapped >12.4	NA	NA	
02-20200708-WL-01	2.891171	Mapped	BN-4	2	
02-20200708-WL-02	0.568202	Mapped	BN-4	2	
02-20200708-WL-02	2.582503	Mapped	BN-4	2	
02-20200709-WL-04	0.049311	Mapped	BN-6	2	
02-20200709-WL-05	0.049425	Mapped	BN-6	2	
02-20200709-WL-06	0.244138	Mapped	BN-6	2	
02-20200710-WL-07	0.290374	Mapped	BN-6	2	
02-20200710-WL-08	0.211065	Mapped	BN-7	2	
02-20200710-WL-08	5.59621	Mapped	BN-7	2	
02-20200710-WL-10	2.375764	Mapped	BN-9	2	
02-20200710-WL-11	0.222467	Mapped	BN-9	2	
02-20200713-WL-13	0.07388	Mapped	BN-4	2	
02-20200713-WL-13	0.385789	Mapped	BN-4	2	
02-20200714-WL-16	2.884057	Mapped	BN-9	2	
02-20200714-WL-17	0.219275	Mapped	BN-10	3	
02-20200715-WL-18	1.035823	Mapped	BN-11	3	

Wetland Delineation ID <sup>1</sup>	Acreage	Category <sup>2</sup>	State Wetland ID	Wetland Classification	Changes <sup>3</sup>
02-20200715-WL-18	0.057326	Mapped	BN-11	3	
02-20200715-WL-18	0.461999	Mapped	BN-11	3	
02-20200715-WL-18	0.298356	Mapped	BN-11	3	
02-20200715-WL-18	0.52559	Mapped	BN-11	3	
02-20200715-WL-18	3.161286	Mapped	BN-11	3	
02-20200715-WL-19	0.037472	Mapped	BN-11	3	
02-20200716-WL-18	2.909715	Mapped	BN-11	3	
02-20200716-WL-22	0.140152	Mapped	BN-11	3	
02-20200716-WL-24	0.071792	Mapped	BN-10	3	
02-20200716-WL-24	0.085086	Mapped	BN-10	3	
02-20200716-WL-24	0.059409	Mapped	BN-10	3	
02-20200716-WL-24	1.643888	Mapped	BN-11	3	
02-20200720-WL-32	0.346523	Mapped	BN-2	2	
02-20200721-WL-35	1.787573	Mapped	BN-2	2	
02-20200721-WL-37	2.714504	Mapped	BN-4	2	
02-20200721-WL-37	0.371252	Mapped	BN-4	2	
02-20200721-WL-38	0.226776	Mapped	BN-4	2	
02-20200721-WL-39	0.361543	Mapped	BN-4	2	
02-20200721-WL-40	11.57416	Unmapped >12.4	NA	NA	
02-20200721-WL-41	1.321893	Unmapped >12.4	NA	NA	
02-20200723-WL-49	11.76145	Unmapped >12.4	NA	NA	
02-20200723-WL-50	0.173285	Unmapped >12.4	NA	NA	
02-20200723-WL-50	0.915839	Mapped	BN-12	2	
02-20200723-WL-50	0.109729	Mapped	BN-12	2	
02-20200723-WL-50	7.014872	Mapped	BN-12	2	
02-20200724-WL-51	1.61291	Mapped	BN-12	2	

Wetland Delineation ID <sup>1</sup>	Acreage	Category <sup>2</sup>	State Wetland ID	Wetland Classification	Changes <sup>3</sup>
02-20200930-WL-18	0.063739	Mapped	BN-11	3	
02-20201001-WL-08	3.28333	Mapped	BN-7	2	
1_07202020_WL31	1.197519	Mapped	BN-13	2	
1_07202020_WL31	5.400011	Mapped	BN-13	2	
1_07222020_WL45	1.684419	Mapped	BN-15	2	
1_07232020_WL51	2.418461	Mapped	BN-1	3	
1_07232020_WL52	0.500047	Mapped	BN-1	3	
1_07232020_WL52	0.061917	Mapped	BN-1	3	
1_07232020_WL52	1.390417	Mapped	BN-1	3	
1_202000925_WL52	2.582858	Mapped	BN-1	3	
1_20200706_WL01	0.636565	Mapped	OK-1	1	
1_20200706_WL01	1.523009	Mapped	OK-1	1	Removed ditch running East/West ( ±250 feet)
1_20200706_WL01	0.383753	Mapped	OK-1	1	
1_20200709_WL09	0.504766	Mapped	OK-1	1	
1_20200714_WL20_01	0.079821	Unmapped >12.4	NA	NA	
1_20200714_WL20_02	1.950557	Unmapped >12.4	NA	NA	
1_20200714_WL20_03	0.144125	Unmapped >12.4	NA	NA	
1_20200714_WL20_04	0.146322	Unmapped >12.4	NA	NA	
1_20200714_WL20_05	0.192224	Unmapped >12.4	NA	NA	
1_20200714_WL20_06	0.409674	Unmapped >12.4	NA	NA	
1_20200714_WL20_07	0.501633	Unmapped >12.4	NA	NA	
1_20200714_WL20_08	7.861007	Unmapped >12.4	NA	NA	
1_20200715_WL15	0.147005	Mapped	BN-13	2	
1_20200715_WL15	0.087253	Mapped	BN-13	2	
1_20200715_WL20	0.271589	Unmapped >12.4	NA	NA	

Wetland Delineation ID <sup>1</sup>	Acreage	Category <sup>2</sup>	State Wetland ID	Wetland Classification	Changes <sup>3</sup>
1_20200715_WL20	0.317891	Unmapped >12.4	NA	NA	
1_20200715_WL22	3.664682	Unmapped >12.4	NA	NA	
1_20200715_WL23	1.857745	Unmapped >12.4	NA	NA	
1_20200715_WL24	6.48859	Unmapped >12.4	NA	NA	
1_20200715_WL25	0.361122	Mapped	BN-13	2	
1_20200715_WL28	0.257459	Mapped	BN-13	2	
1_20200715_WL29	1.133875	Mapped	BN-13	2	
1_20200715_WL29	10.96659	Mapped	BN-13	2	
1_20200715_WL30	1.709685	Mapped	BN-13	2	
1_20200716_WL27	0.077126	Unmapped >12.4	NA	NA	
1_20200716_WL28	1.505004	Mapped	BN-13	2	
1_20200716_WL28	0.536321	Mapped	BN-13	2	
1_20200716_WL28	1.281625	Mapped	BN-13	2	
1_20200720_WL31	0.419222	Mapped	BN-13	2	
1_20200720_WL32	0.00011	Mapped	BN-13	2	
1_20200720_WL32	0.030991	Mapped	BN-13	2	
1_20200720_WL33	0.319437	Mapped	BN-14	3	
1_20200720_WL33	0.995117	Mapped	BN-14	3	
1_20200720_WL40	1.15791	Mapped	BN-13	2	
1_20200722_WL46	0.314998	Mapped	BN-15	2	
1_20200722_WL46	0.583963	Mapped	BN-15	2	
1_20200722_WL47	0.158779	Mapped	BN-1	3	
1_20200722_WL47	2.414519	Mapped	BN-1	3	
1_20200722_WL48	0.00824	Mapped	BN-1	3	
1_20200722_WL49	1.365022	Mapped	BN-1	3	
1_20200723_WL53	1.006466	Mapped	BN-1	3	Removed separated ditch (±170 feet)

Wetland Delineation ID <sup>1</sup>	Acreage	Category <sup>2</sup>	State Wetland ID	Wetland Classification	Changes <sup>3</sup>
1_20200723_WL53	0.594728	Mapped	BN-1	3	Removed portion of wetland under transmission line (±0.3 acres)
1_20200723_WL54	0.136549	Mapped	BN-14	3	
1_20200723_WL54	0.71108	Mapped	BN-14	3	
1_20200922_WL105	0.218765	Mapped	OK-11	2	
1_20200922_WL106	1.504988	Mapped	OK-11	2	
1_20200923_WL108	0.362071	Mapped	OK-1	1	
1_20200923_WL109	2.955281	Unmapped >12.4	NA	NA	
1_20200925_WL111	1.203939	Mapped	BN-2	2	
1_2020921_WL103	0.068705	Mapped	OK-11	2	
1_2020921_WL103	0.041197	Mapped	OK-11	2	
1_2020921_WL103	0.689733	Mapped	OK-11	2	
1_2020921_WL103	0.185157	Mapped	OK-11	2	
1_2020921_WL103	1.699459	Mapped	OK-11	2	
1_2020921_WL103	0.115932	Mapped	OK-11	2	
Off-Site Wetland	2.486078	Mapped	OK-11	2	
<sup>1</sup> ID assigned by applicant in draft wetland delineation report. <sup>2</sup> Includes mapped wetlands and unmapped wetlands with a total area greater than 12.4 acres in size. <sup>3</sup> Changes include any minor adjustments to features provided by the applicant					

Attachment B  
Hecate Energy Cider Solar Farm  
Locations of Minor Changes to Draft Wetland Delineation Report

