



Appendix 12-A: Wildlife Site Characterization
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Wildlife Site Characterization

Cider Solar Farm

Genesee County, New York

April 7, 2021

Prepared for:

Hecate Energy LLC
621 West Randolph Street
Chicago, IL 60661


Prepared by:


Stantec Consulting Services Inc.
61 Commercial Street, Suite 100
Rochester, NY 14614

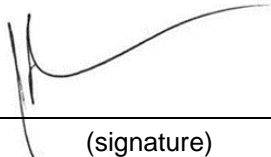
WILDLIFE SITE CHARACTERIZATION

March 3, 2021

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Prepared by 
(signature)
Shane Kelley, Environmental Scientist

Reviewed by 
(signature)
Derek Ebner, Principal

Approved by 
(signature)
Josh Adams, Senior Environmental Scientist



WILDLIFE SITE CHARACTERIZATION

April 2021

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	PROJECT SITE	1
3.0	METHODS	1
3.1	DOCUMENTED SPECIES	1
3.2	LANDCOVER CLASSIFICATION	3
3.2.1	Desktop Mapping	3
3.2.2	Ground-truthing	3
3.3	WETLANDS	4
4.0	RESULTS	4
4.1	FEDERAL AND STATE LISTED DOCUMENTED SPECIES	4
4.2	HABITAT SUITABILITY	11
4.2.1	Agricultural Land and Associated Species	11
4.2.2	Forested Habitat and Associated Species	12
4.2.3	Wetland and Open Water Habitats and Associated Species	12
4.3	LANDSCAPE FEATURES IN THE STUDY AREA	13
4.4	GEOGRAPHY AND TOPOGRAPHY OF THE PROJECT SITE	14
4.5	WETLANDS IN THE PROJECT SITE	15
4.6	AUDUBON CLIMATE MODELING	16
4.7	CONCLUSIONS	17
5.0	REFERENCES	19

LIST OF TABLES

Table 1. Documented species potentially occurring within the Study Area and Project Site	4
Table 2. Preferred habitat of documented animal species and habitat suitability in the Study Area, Project Site, and Project Parcels	6
Table 3. Landcover classes represented in the Project Site	11
Table 4. NWI wetland type and acreage in the Project Site	15
Table 5. NYSDEC wetlands mapped in the Project Site	16
Table 6. Audubon Climate Modeling Tool for Genesee County, New York	17

LIST OF APPENDICES

Appendix 1	Figures
Appendix 2	IPaC and NYNHP Reports



1.0 INTRODUCTION

Hecate Energy, LLC (Hecate) is proposing the Cider Solar Farm (the Project), a ±500-megawatt solar facility to be located on private land in the towns of Elba and Oakfield in Genesee County, New York (the Project Site) (**Appendix 1, Figure 1**). Hecate contracted Stantec Consulting Services Inc. (Stantec) to conduct a Wildlife Site Characterization (WSC) to summarize existing public information relative to listed federally or state threatened or endangered species that have the potential to occur within a Project specific study area. Specifically, the WSC reviewed the potential presence of listed species documented within a 5-mile buffer¹ around the Project Site (Study Area) (**Appendix 1, Figure 2**), based upon publicly available data.

The Project Site is located north-centrally within Genesee County, approximately 5 miles north of the City of Batavia. It is roughly bound by County Route 9/Albion Road to the west and Miller Road and vacant land to the east. Lockport Road bisects the Project Site from east to west, while State Route 98 traverses the eastern portion of the Project Site. The villages of Oakfield and Elba are located approximately 1.5 miles and 0.7 miles (respectively) south of the Project Site's southern boundary.

2.0 PROJECT SITE

The Project Site is located in an area generally characterized by active agriculture and rural residential land interspersed with sparsely forested areas/hedgerows with level to rolling topography (**Appendix 1, Figure 1**). The Project Site comprises approximately 7,845 acres of land. Not all of the land included in the Project Site will be included in the final Project footprint; rather, the Project Site represents the broader area within which selected areas will be surveyed, micrositied and developed with solar panels and related infrastructure. Based on conversations with Hecate, woodland and wetland areas will be avoided to the extent possible by the Project; hence, impacts to listed species occupying such habitats are expected to be minimal. The Project is expected to be developed primarily on agricultural land, with current participating Project parcels (Project Parcels) totaling approximately 4,650 acres (59% of the Project Site). Current Project Parcels are shown in **Appendix 1, Figure 3**.

3.0 METHODS

3.1 DOCUMENTED SPECIES

Stantec consulted publicly available online databases to screen for records of federally or state listed and conservation concern species in the Study Area. The purpose of this review was to develop a baseline

¹ Section 94-c of the New York State Executive Law §900-1.3(g)(1)(ii-iii) dictates that the WSC is to include the area within 5 miles of the proposed facility.



WILDLIFE SITE CHARACTERIZATION

April 2021

understanding of rare species potentially using the Project Site or the area within 5 miles. In particular, Stantec consulted the following:

- New York's Environmental Assessment Form Mapper
- New York Natural Heritage Program (NYNHP)
- U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) and ECOs databases
- USFWS Designated Critical Habitat data
- New York's Environmental Resource Mapper
- Nature Explorer
- New York State Rare Plant Status List
- New York State Department of Environmental Conservation (NYSDEC) List of Endangered, Threatened, and Special Concern Fish & Wildlife Species of New York State
- Breeding Bird Atlas (NYSDEC 2007)
- United States Geological Survey's (USGS) Breeding Bird Survey (BBS) (Pardieck et al. 2019)
- eBird²
- Audubon Christmas Bird Counts³
- New York State Ornithological Association⁴
- Available local birding organizations databases
- Bat Conservation International's database on bat species ranges⁵
- NYSDEC bat information
- Google Earth™ aerial imagery review for the past 5 years

Stantec was not able to access the Biodiversity and Wind Siting and Mapping tool, as the system was down during multiple attempts to access the site (<http://www.ebd.mapny.info/>). Therefore, any records available in this database were not considered.

Because the Project has already initiated coordination with NYSDEC, and received some feedback regarding listed species records, Stantec included spatial data provided by NYSDEC containing the known locations of nearby populations of protected species. This data and associated habitat assessment data was also incorporated into the design and completion of a BBS conducted by Stantec in 2020.⁶ These sources were reviewed to determine the potential occurrence of special status species or designated critical habitat in the Project Site and the surrounding Study Area.

² eBird. 5 year eBird Siting History for Genesee County, NY. Available: <https://ebird.org/region/US-NY?yr=all>. Accessed October 2020

³ Audubon Society. Audubon Christmas Bird Counts. 5 year historical Data. Available: <https://netapp.audubon.org/cbcobservation/>. Accessed September 2020.

⁴ NY State Ornithological Association. 5 year records search for Genesee County. Available: <https://nybirds.org/ProjCountyLists.html>. Accessed October 2020.

⁵ Bat Conservation International. Bat Profiles-New York. Available: https://www.batcon.org/about-bats/bat-profiles/?fwp_location=new-york. Accessed October 2020.

⁶ Hecate Cider Solar Farm Breeding Grassland Bird Survey Report (October 14, 2020).



3.2 LANDCOVER CLASSIFICATION

3.2.1 Desktop Mapping

To assist land use and land cover (LU/LC) classification of the Project Site, Stantec used its ExtractX™ remote sensing service to identify, delineate and classify vegetative communities. ExtractX is an object-based image analysis tool, a form of artificial intelligence that automatically breaks down images into objects using spectral reflectance, texture, shape, size, and proximity characteristics, and instantaneously clusters or segments image pixels with similar properties to form a series of objects. To classify the land use of the Project Site, ExtractX processed multispectral datasets from satellites as well as terrestrial elevation data from LiDAR.

After each dataset is segmented into objects, ExtractX analyzes statistical properties from each individual geospatial layer (imagery bands and elevation and/or bathymetry layers) for each individual object, including for color (brightness, mean) and elevation (slope, aspect), texture (homogeneity, heterogeneity), size (area, perimeter), shape (compactness, linearity), and proximity to other classes/objects, allowing for multi-aspect classification of the Project Site. ExtractX was used as an alternative to the USGS National Land Cover Database (NLCD), as the resulting data is a higher resolution than the latest NLCD data (2016).

Stantec generated a comprehensive list of common land use and vegetative community types. Vegetation mapping (LU/LC classes) included the following upland vegetation communities: agricultural land subdivided into active row crops, pasture/grassland, and hay/fallow agriculture; wetlands/streams/open water subdivided into forested wetlands, emergent/wet meadow/marsh, scrub-shrub wetlands, streams, and open water; upland forest; and structures.

Stantec utilized satellite imagery (WorldView-3) collected in May 2020 to generate the Project Site-wide LU/LC layer. WorldView-3 offers 30-centimeter ground space distance resolution in the blue (490 nanometers [nm]), green (560 nm), red (665 nm), and near infrared (842 nm) channels. From the imagery, a series of indices were generated to classify vegetation community types. These include the Normalized Difference Vegetation Index, the Enhanced Vegetation Index, the Green Chlorophyll Index, the Normalized Difference Water Index, and the Iron Oxide Index. For elevation data, Stantec used LiDAR (2011 at 1-meter resolution) from New York. This data layer provided surface topography data including slope, aspect, and canopy height to assist with vegetation classification and differentiation between forested uplands and forested wetlands.

3.2.2 Ground-truthing

To confirm the findings of the desktop mapping, Stantec biologists conducted windshield and pedestrian surveys in select agricultural areas to confirm landcover type and current land use (e.g., active agricultural land versus passive/fallow agriculture). This information was then passed on to the team conducting the desktop assessment to confirm the desktop results. Once this information was collected, minor adjustments were made to the LU/LC data.



WILDLIFE SITE CHARACTERIZATION

April 2021

3.3 WETLANDS

Desktop analysis was performed using NYSDEC Freshwater Wetland mapping (NYSDEC 2020), the USFWS National Wetland Inventory (NWI) mapping (USFWS 2016), and the results of LU/LC classification, as described in Section 3.2.1, above. Stantec identified areas likely to contain wetlands and streams using a combination of these data resources.

4.0 RESULTS

4.1 FEDERAL AND STATE LISTED DOCUMENTED SPECIES

Based on the review of available data sources described in Section 3.1 above, 10 species (9 animals and 1 plant) were identified as potentially occurring within the Study Area and/or Project Site (**Table 1**). Additional information on the habitat requirements and preferences associated with the nine animal species, as well as the probability of occurrence in the Project Site and Project Parcels, is provided in **Table 2**. The data review did not identify federally designated critical habitat for any threatened or endangered species in Genesee County (USFWS 2020).

In addition, NYSDEC provided the Project with confidential locations of known populations of state-listed protected species in the Study Area within the vicinity of the Project Site (NYSDEC, personal comm.). These records match the information found in other database reviews and information provided by NYSDEC did not differ from the database review (**Appendix 1, Figure 2**).

Table 1. Documented species potentially occurring within the Study Area and Project Site

Common Name	Scientific Name	Status	Within Study Area	Within Project Site
Eastern massasauga	<i>Sistrurus catenatus catenatus</i>	Federally threatened	Yes	No
Houghton's goldenrod	<i>Solidago houghtonii</i>	Federally threatened	Yes	No
Bald eagle	<i>Haliaeetus leucocephalis</i>	State threatened	Yes	No
King rail	<i>Rallus elegans</i>	State threatened	Yes	No
Northern harrier	<i>Circus cyaneus</i>	State threatened	Yes	Yes
Black tern	<i>Chlidonias niger</i>	State endangered	Yes	Yes ¹
Pied-billed grebe	<i>Podilymbus podiceps</i>	State threatened	Yes	Yes
Sedge wren	<i>Cistothorus platensis</i>	State threatened	Yes	Yes
Least bittern	<i>Ixobrychus exilis</i>	State threatened	Yes	Yes
Northern-long eared bat	<i>Myotis septentrionalis</i>	State and federally threatened	Yes	Yes

¹ The NYNHP response letter (**Appendix 2**) indicates that black tern occurs within the Project Site. However, the mapping data from NYNHP depicts black tern within the Study Area but not within the Project Site (**Appendix 1, Figure 2**).



WILDLIFE SITE CHARACTERIZATION

April 2021

A review of IPaC data (**Appendix 2**) within the Study Area indicates occurrence of a federally threatened reptile and a federally threatened plant: eastern massasauga and Houghton's goldenrod. Eastern massasaugas are typically associated with shallow wetlands, often using sphagnum bogs, fens, swamps, marshes, peatlands, wet meadows, floodplains, old fields, and dry woodlands. Houghton's goldenrod is restricted to calcareous beach sands, rocky and cobbly shores, beach flats, edges of marl ponds, and shallow interdunal wetlands that parallel lake shores. The only known location of the species occurs in Bergen Swamp Nature Preserve within a marl fen approximately 7 miles east of the Project Site. IPaC identified no federally threatened or endangered species occurring within the Project Site.

According to NYNHP (**Appendix 2**), there are seven New York state-listed threatened or endangered species documented within the Study Area: bald eagle, king rail, northern harrier, black tern, pied-billed grebe, sedge wren, and least bittern. Except for bald eagle and king rail, these species were also identified within the Project Site. Bald eagles prefer complex forested habitats with variable structures, with forests occurring near lakes, rivers, or wetlands. In winter, this species often congregates near large rivers. King rails breed in shallow wetlands and marshes that contain some open water. Northern harriers inhabit a wide variety of grassland habitats, with a preference for wet grasslands and marshes for breeding. Black terns breed in relatively secluded freshwater emergent marshes and forage over nearby open water. This species has rigid habitat requirements, with a preference for marshes greater than 20 hectares. Pied-billed grebes breed on seasonal or permanent ponds and other bodies of slow-moving or still water. Sedge wrens prefer habitats with dense, tall sedges and grasses and avoid areas with standing water. Least bitterns breed in freshwater marshes with tall, emergent vegetation. This species prefers larger contiguous areas of marsh habitat exceeding 5 hectares. During the BBS conducted in 2020, none of these species were identified within the Project Site either during surveys or incidental to surveys (Stantec 2020a).

NYNHP also indicated that the Project Site is located in a significant winter raptor concentration area. The NYSDEC has made recent efforts to more closely monitor and identify wintering raptor concentration areas throughout New York State, and the northern harrier is included as a primary target species.

The IPaC review and NYNHP data did not identify northern long-eared bat within the Study Area or Project Site. Based on the range of this species, northern long-eared bat was considered to have the potential to occur within the Study Area and Project Site. Northern long-eared bats hibernate in caves and mines during the winter. In the summer, this species roosts under the bark of trees or in tree cavities or crevices. Northern long-eared bats typically use mature interior forests and tend to avoid woodlands with significant edge habitat.



WILDLIFE SITE CHARACTERIZATION

April 2021

Table 2. Preferred habitat of documented animal species and habitat suitability in the Study Area, Project Site, and Project Parcels

Common Name	Federal Status	State Status	Preferred Habitat in Genesee County	Potential for Suitable Habitat within the Project Site and Project Parcels
Reptiles				
Eastern Massasauga	T	E	Two known populations are present in New York, separate from one another, in large wetland complexes near Syracuse and Rochester. This species is typically associated with shallow wetlands, but the habitat can vary regionally. In the spring and fall, this species is typically found in wet meadows. During summer months, this species uses upland habitats. In winter, eastern massasaugas hibernate in sphagnum hummocks. Peatlands are a crucial component of habitat requirements for this species in New York.	The IPaC review identified eastern massasauga as occurring within the Study Area. Genesee County contains one of the two known state populations. Based on LU/LC classification, the Project Site contains approximately 71 acres of scattered freshwater emergent wetlands that could serve as potentially suitable habitat. However, the nearest known population is located several miles east of the Project Site. Based on the landscape characteristics and predominance of agricultural activities, it is unlikely that peatlands occur within the Project Site or Project Parcels. Therefore, the Project Site and Project Parcels do not appear to contain the habitat requirements associated with this species, and it is unlikely that this species occurs within the Project Site or Project Parcels. Observations and data from the wetland and stream delineation conducted in 2020 can be used to further address habitat suitability, if necessary.
Birds				
Bald Eagle	--	T	Breeding habitat consists of undisturbed forested habitat near lakes, rivers, or wetlands. Prefers complex forested habitats with variable structures. In New York they show a preference for nesting in white pine and cottonwood. In winter, the species will congregate near large rivers.	Data from NYNHP identified bald eagle as occurring within the Study Area, and the IPaC review indicated bald eagle may occur within the Project Site. NYNHP records identified one known occupied nest located within the Study Area, approximately 3,900 feet northwest of the Project Site (Appendix 1, Figure 2). The BBS conducted in 2020 did not identify bald eagle within the Project Site during surveys or incidental to surveys. There is limited potential for this species to occur in the Project Site or Project Parcels due to the lack of complex forested habitats and the lack of undisturbed forested habitat near lakes, river, or wetlands. Based on the lack of preferred breeding and wintering habitat for this species, it is expected that bald eagle would likely only occur within the Project Site and Project Parcels during migration.



WILDLIFE SITE CHARACTERIZATION

April 2021

Common Name	Federal Status	State Status	Preferred Habitat in Genesee County	Potential for Suitable Habitat within the Project Site and Project Parcels
King Rail	--	T	Breeds in shallow wetlands and marshes that contain some open water. Constructs raised nests with marsh vegetation and forages in the substrate near cover.	Data from NYNHP identified king rail as occurring within the Study Area, indicating a known population is located within 0.2 mile of the Project Site (Appendix 2). Based on LU/LC classification, there are approximately 71 acres of scattered freshwater emergent wetlands within the Project Site (potentially suitable habitat). The BBS conducted in 2020 did not identify king rail within the Project Site during surveys or incidental to surveys. There is limited potential for this species to occur in the Project Site or Project Parcels. Although there are scattered emergent wetlands within the Project Site and Project Parcels, few of these wetlands contain open water. Therefore, the Project Site and Project Parcels contain limited suitable habitat for this species. Observations and data from the wetland and stream delineation conducted in 2020 can be used to further address habitat suitability, if necessary.
Northern Harrier	--	T	Inhabits a wide variety of grassland habitats. Breeds and winters in open wetlands, marshy meadows, wet/lightly grazed pastures, old fields, freshwater and brackish marshes, uplands prairies, mesic grasslands, drained marshlands, croplands, cold desert shrub-steppe, and riparian woodland. Appears to prefer wet grasslands and marshes for breeding.	Data from NYNHP identified northern harrier as occurring within the Project Site and Study Area. NYNHP records show that the northwestern corner of the Project Site slightly overlaps known wintering populations for the species, and the southwestern corner just intersects known breeding populations (Appendix 1, Figure 2). NYNHP also indicated that the Project Site is in a significant winter raptor concentration area; however, the extent of that area within the Project Site is unclear. The Project Site is mainly active agriculture land and, based on the LU/LC classification, there are approximately 71 acres of scattered freshwater emergent wetlands in the Project Site (potentially suitable foraging and breeding habitat). There is potential for this species to occur in the Project Site during breeding and wintering. However, the BBS conducted in 2020 did not identify northern harrier within the Project Site during surveys or incidental to surveys. Additionally, Stantec is currently conducting wintering grassland bird surveys following the 2015 NYSDEC Draft Survey Protocol for State-listed Wintering Grassland Raptor Species. These surveys will be conducted through March 31, 2021, with the potential of extending into April 2021. The potential for suitable northern harrier habitat within the Project Site and Project Parcels will be better understood upon the completion of the wintering bird surveys. Additional consultation with NYSDEC may be required to obtain further details regarding the significant winter raptor concentration area.



WILDLIFE SITE CHARACTERIZATION

April 2021

Common Name	Federal Status	State Status	Preferred Habitat in Genesee County	Potential for Suitable Habitat within the Project Site and Project Parcels
Black Tern	--	E	Breeds in relatively secluded freshwater emergent marshes and will forage over nearby bodies of open water. Will use both marshes and inland and lake shoreline habitat for breeding. Habitats include shallow marshes, open water areas of deep marshes, wet meadows, natural ponds, lakes, and river oxbows, reed-bordered sloughs, shallow river impoundments, edges of streams, and swampy grasslands. Water level and vegetation changes can cause the species to abandon or colonize new areas. Habitat requirements are strict and the proximity to other wetlands is critical. Prefers marshes > 20 hectares (49 acres) in size but will use marshes ranging from 5 to 11 hectares (12 to 27 acres).	Data from NYNHP identified black tern as occurring within the Study Area, indicating a known population of the species in the northwest corner of the Study Area (Appendix 1, Figure 2). However, there is limited potential for this species to occur within the Project Site. Based on LU/LC classification, the Project Site contains approximately 71 acres of scattered freshwater emergent wetlands (potentially suitable habitat). Although scattered emergent wetlands occur throughout the Project Site, there are no emergent wetlands in the Project Site or Project Parcels that meet the preferred size requirements of > 20 hectares (Appendix 1, Figure 3). There are also few emergent wetlands meeting the minimum size requirements (12 acres) within the Project Site or Project Parcels. Additionally, there are very few natural ponds, lakes, river impoundments, etc. within the Project Site or Project Parcels. Therefore, the Project Site and Project Parcels do not contain the habitat requirements associated with this species. Observations and data from the wetland and stream delineation conducted in 2020 can be used to further address habitat suitability, if necessary.
Pied-billed Grebe	--	T	Breeds on seasonal or permanent ponds and other bodies of slow-moving or still water (freshwater marshes/sluggish rivers) where an abundance of emergent aquatic vegetation occurs.	Data from NYNHP identified pied-billed grebe as occurring within the Study Area and Project Site, indicating a known population of the species in the northwest corner of the Project Site (Appendix 1, Figure 2). However, there is limited potential for this species to occur in the Project Site. Based on LU/LC classification, the Project Site contains approximately 29 acres of freshwater ponds and approximately 71 acres of scattered freshwater emergent wetlands which could provide suitable habitat. Although LU/LC mapping identifies scattered emergent wetlands and areas of open water within the Project Site, there are very few ponds within the Project Site or Project Parcels. Therefore, both the Project Site and Project Parcels contain very limited suitable habitat for this species. Observations and data from the wetland and stream delineation conducted in 2020 can be used to further address habitat suitability, if necessary.



WILDLIFE SITE CHARACTERIZATION

April 2021

Common Name	Federal Status	State Status	Preferred Habitat in Genesee County	Potential for Suitable Habitat within the Project Site and Project Parcels
Sedge Wren	--	T	Inhabits ephemeral habitats such as wet meadows, hay fields, upland edges of ponds, sphagnum bogs, and marshes. Prefers habitat with dense, tall sedges and grasses and avoids areas with standing water and cattails. Sedge meadows, which offer saturated soils, with or without shallow standing water, provide optimal nesting habitat for this species.	Data from NYSDEC identified sedge wren as occurring within the Study Area and Project Site, indicating a known population of this species in the northwest corner of the Project Site (Appendix 1, Figure 2). Based on LU/LC classification, there are approximately 71 acres of scattered freshwater emergent wetlands within the Project Site (potentially suitable habitat). The BBS conducted in 2020 did not identify sedge wren within the Project Site during surveys or incidental to surveys. There is moderate potential for this species to occur in the Project Site and Project Parcels. Observations and data from the wetland and stream delineation conducted in 2020 will be used to further address habitat suitability within the Project Site and Project Parcels and may result in additional consultation with NYSDEC.
Least Bittern	--	T	Breeds in freshwater marshes with tall emergent vegetation (i.e., cattail/bulrush with bur-reed, sedges, or common reed interspersed with open water habitats). Prefers larger contiguous areas of marsh habitat greater than 5 hectares (12 acres).	Data from NYNHP identified least bittern as occurring within the Study Area and Project Site, indicating a known population of this species in the northwest corner of the Project Site (Appendix 1, Figure 2). However, there is limited potential for this species to occur in the remainder of the Project Site. Based on LU/LC classification, the Project Site contains approximately 71 acres of scattered freshwater emergent wetlands (potentially suitable habitat). Although scattered emergent wetlands occur throughout the Project Site, there are few emergent wetlands in the Project Site or Project Parcels greater than 12 acres in size (Appendix 1, Figure 3). Therefore, the Project Site and Project Parcels do not contain the habitat requirements associated with this species. Observations and data from the wetland and stream delineation conducted in 2020 can be used to further address habitat suitability, if necessary.



WILDLIFE SITE CHARACTERIZATION

April 2021

Common Name	Federal Status	State Status	Preferred Habitat in Genesee County	Potential for Suitable Habitat within the Project Site and Project Parcels
Mammals				
Northern Long-Eared Bat	T	T	Hibernates in caves and mines in winter. During summer, roosts singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags. Northern long-eared bats typically use mature interior forests and tend to avoid woodlands with significant edge habitat. Males and non-reproductive females may also roost in cooler places, like caves and mines, rarely roosting in structures, like barns and sheds.	While this species may occur in Genesee County, an IPaC search within the Study Area returned no documentation for presence of northern long-eared bats. Additionally, NYNHP data did not identify this species as occurring within the Study Area. Based on the LU/LC classification, there are approximately 2,460 acres of forestland within the Project Site. However, there is limited potential for this species to occur in the Project Site or Project Parcels. The Project Site and Project Parcels do not contain areas of mature interior forests. Additionally, much of the forested areas within the Project Site and Project Parcels contain significant edge habitat since the area dominated by open agricultural land. Therefore, the Project Site and Project Parcels do not contain suitable habitat for this species.

Sources: BONAP 2020; NYSDEC 2013, 2014a,b,c,d,e, 2015, 2017, 2019; NYSDEC Breeding Bird Atlas 2000; NYNHP 2020a,b; USFWS 1997, 2001, 2016, 2020

Key: E = Endangered; T = Threatened



4.2 HABITAT SUITABILITY

The dominant landcover classes in the Project Site are active agriculture row crop (**Appendix 1, Figure 3**), which represents approximately 55% (4,254 acres) of the available area, followed by forested wetlands (19%; 1,473 acres) and successional forestland (13%; 987 acres). **Table 3** shows other landcover classes present within the Project Site.

Table 3. Landcover classes represented in the Project Site

Landcover Class	Total Acreage ¹	Percent of Total
Upland		
Active Agriculture Row Crop	4,254	54.7%
Grassland/Pastureland	252	3.2%
Active Agriculture Hay Field	23	0.3%
Successional Forestland	987	12.6%
Successional Shrubland	62	0.8%
Disturbed/Developed Structures	549	7.0%
Wetland/Stream		
Forested Wetlands	1,473	18.8%
Wet Meadow/Marshland	71	0.9%
Scrub-Shrub Wetlands	62	0.8%
Streams	79	1.0%
Open Water	29	0.4%
Total	7,841	100%

¹ The total acreage (7,841) differs slightly from the total Project Site acreage (7,845) because roads were not included in the landcover classes presented in this table.

Landcover classes presented in **Table 3** can be further refined with final wetland delineation data when it becomes available (Preliminary Draft Wetland and Stream Delineation Report and Function and Value Assessment, November 2020).

4.2.1 Agricultural Land and Associated Species

Active agricultural lands within the Project Site primarily consist of row crops such as soybean, corn, and wheat (Stantec 2020b). Of the nine animal species documented within the Project Site and Study Area, one species, northern harrier, is predominantly associated with grassland habitats. Northern harriers inhabit a wide variety of grassland habitats with a preference for wet grasslands and marshes for breeding. The BBS conducted in 2020 did not identify this species within the Project Site during surveys or incidental to surveys (Stantec 2020a). However, based on the abundance of agricultural and open land within the Project Site, habitats within the Project Site may be suitable for northern harriers. More information regarding the potential presence of this species within the Project Site will be available upon completion of the wintering bird surveys that are currently underway. Additionally, further consultation with



WILDLIFE SITE CHARACTERIZATION

April 2021

NYSDEC may be needed to obtain details regarding the significant winter raptor concentration area identified as a result of the initial data request submitted to NYSDEC.

4.2.2 Forested Habitat and Associated Species

Forested areas within the Project Site border many of the agricultural fields and are characterized by a mixture of northern hardwood forests and planted pine and spruce stands (Stantec 2020b). Of the nine animal species documented within the Project Site and Study Area, two species are associated with forested habitats: bald eagle and northern long-eared bat.

In 2017, there were a total of 426 active breeding pairs of bald eagles in New York (NYNHP 2021). Bald eagle breeding habitat generally consists of undisturbed forested habitat near lakes, rivers, and wetlands, with a preference for complex forested habitats. In winter, this species congregates near large rivers. Given that the forested habitat within the Project Site does not occur near lakes or rivers and there are no large rivers within the Project Site, the habitat within the Project Site does not appear suitable for breeding or wintering bald eagles. However, it is likely that this species would occur within the Project Site during migration.

Northern long-eared bats roost underneath tree bark or in cavities or crevices of live trees and dead snags in the summer months. Typically, this species uses mature interior forests, avoiding woodlands with significant edge habitat. Given that there are no mature interior forests within the Project Site and that most forested areas contain significant edge habitat since they border agricultural lands, the habitat within the Project Site does not appear suitable for northern long-eared bat roosting. It is possible that the species occurs in the project area during migration or for foraging.

4.2.3 Wetland and Open Water Habitats and Associated Species

Wetlands identified during the landcover analysis include open water wetlands and freshwater forested, scrub-shrub, and emergent wetlands. Of the nine animal species documented within the Project Site and Study Area, six species are strongly associated with open water habitats and/or emergent wetlands: eastern massasauga, black tern, least bittern, pied-billed grebe, sedge wren, and king rail.

Open water wetlands within the Project Site appear to be created as a result of agricultural activity. These open water habitats represent less than 30 acres of the overall Project Site, with the majority of which are approximately 0.10 acre in size. Only one open water wetland over 1 acre in size was identified in the Project Site.

Of the documented species, pied-billed grebes are predominantly associated with open water habitats. This species breeds on seasonal or permanent ponds and other bodies of slow-moving or still water. Due to the limited amount of open water habitat within the Project Site, the habitat within the Project Site does not appear suitable for pied-billed grebes.

Several emergent wetlands were identified within the Project Site during the landcover analysis. However, these wetlands were generally small in size. Additionally, review of aerial imagery identified only two emergent wetlands within the Project Site containing open water habitat.



WILDLIFE SITE CHARACTERIZATION

April 2021

In evaluating the documented species, black terns breed in emergent wetlands and forage over nearby bodies of water, with a preference for wetlands greater than 20 hectares (49 acres) in size. Least bitterns breed in emergent wetlands with tall vegetation interspersed with open water habitats and prefer wetlands greater than 5 hectares (12 acres). Given that the average size of emergent wetlands within the Project much less than the 20 hectares preferred by the species, combined with the lack of open water habitats nearby, it is unlikely that black terns or least bitterns utilize the Project Site. King rails breed in shallow wetlands that contain some open water. Given that only two emergent wetlands within the Project Site contain open water habitat, it is unlikely that king rails utilize the Project Site. Based on the requirements associated with black terns, least bitterns, and king rails, the habitat within the Project Site does not appear suitable for these three species.

Sedge wrens inhabit ephemeral habitats such as wet meadows, hay fields, and marshes, with a preference for habitat with dense, tall sedges and grasses. Based on the landcover data, this habitat has the potential to exist in the Project Site. The BBS conducted in 2020 did not identify sedge wren within the Project Site during surveys or incidental to surveys (Stantec 2020a). However, based on the characteristics of some wetlands within the Project Site, habitats within the Project Site may be suitable for sedge wrens.

Eastern massasaugas use different habitats seasonally. In the spring and fall, eastern massasaugas are typically found in wet meadow habitats. During the summer months, this species utilizes upland habitats, and in winter, eastern massasaugas hibernate in sphagnum hummocks (Johnson et al. 2000 as cited in NYNHP 2020b). Ecological communities associated with this species include black spruce-tamarack bog, marl fen, northern white cedar rock summit, and rich graminoid fen. Peatlands are a crucial component of eastern massasauga habitat requirements in New York, as peatlands are needed for hibernation and gestation (Johnson 1995 as cited in NYNHP 2020b). Based on the landscape characteristics and predominance of agricultural activities, it is unlikely that peatlands occur within the Project Site or Project Parcels. Therefore, the Project Site and Project Parcels do not appear to contain the habitat requirements associated with this species, and it is unlikely that this species occurs within the Project Site or Project Parcels.

4.3 LANDSCAPE FEATURES IN THE STUDY AREA

The presence of suitable habitat and its orientation within the landscape is important for the conservation and recovery of many state and federally listed species. Because the species listed in **Table 1** are often linked to specific habitat types, Stantec conducted analyses throughout the Project Site on the following habitat types that have the potential to support listed species:

- Mature deciduous forest
- Grasslands and fallow agricultural fields
- Areas of open water
- Forested wetlands and streams

Based on review of aerial imagery over the past five years (Google Earth™ October 2016) and recent site visits, the majority of the Study Area is composed of active agriculture with the fields being planted in row



WILDLIFE SITE CHARACTERIZATION

April 2021

crops at least once in the last five years. Based upon publicly available information and a review of aerial photography, the majority of habitat in the Project Site is common to this region of New York, and there are minimal high value habitat or unique vegetative communities present within the Project Site. However, there are habitat types present in the landscape that may provide suitable habitat for both state and federal threatened and endangered species (e.g., forests, grasslands, and wetlands; **Appendix 1, Figures 3 and 4**).

In addition to the above habitat types present in and around the Project Site, there are larger landscape features located within the Study Area including two protected areas, both of which are considered Important Bird Areas by the National Audubon Society:

- Iroquois National Wildlife Refuge (Refuge) is a 10,828-acre property dominated by multiple large wetland complexes, with multiple marshland areas, fields, and areas of deciduous forests. The Refuge and adjoining areas contain many of the known records of protected species (**Appendix 1, Figure 2**).
- Oak Orchard Wildlife Management Area is a 2,500-acre tract that adjoins the Refuge and contains very similar wildlife habitat.

The entirety of the Project Site is within Grassland “Focus Area 1” of the NYSDEC Landowner Incentive Program.⁷

4.4 GEOGRAPHY AND TOPOGRAPHY OF THE PROJECT SITE

According to the USGS Batavia North, Oakfield, Albion, Knowlesville, Byron, and Holley 7.5-Minute Topographic Quadrangle Maps (2013)⁸, ground surface elevations at the Project Site range from approximately 640 to 830 feet above mean sea level. The Project Site generally slopes towards the northeast. Creeks, wetlands, and ponds are located in relative topographic lows throughout the Project Site.

According to the U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey, the predominant soil types in the Project Site are silt loams, sandy loams, and silty clay loams. The Geologic Map of New York, Niagara Sheet⁹ designates that the underlying bedrock of the Project Site is the Camillus Shale. Camillus Shale was formed during the Paleozoic Era in the Upper Silurian Period and is composed primarily of soft green dolomite shales and thin gypsiferous shales. The Surficial Geologic Map of New York (Cadwell et al. 1985) designates that the surficial geology of the site is mainly comprised of till and swamp deposits. Till consists mainly of variable texture, usually poorly sorted diamict, deposition beneath glacier ice. This feature is relatively impermeable, generally calcareous, and of variable thickness (1–50 meters). The northern portion of the Project Site is underlain by swamp deposits consisting of peat-muck, unoxidized organic silt and sand in poorly drained areas. This feature

⁷ Protecting Grassland Birds on Private Lands. A Landowner Incentive Program Habitat Protection Project. Available: <https://www.dec.ny.gov/pubs/32891.html>. Accessed May 2020.

⁸ USGS 7.5-minute Batavia, Oakfield, Albion, Knowlesville, Byron, and Holley Quadrangle Topographic Maps, 2013.

⁹ Geologic Map of New York, 1971. Available: http://www.nysm.nysed.gov/common/nysm/files/bedrock_master_legend.jpg. Accessed October 2020.



WILDLIFE SITE CHARACTERIZATION

April 2021

may be overlaying marl and lake deposits and has the potential for land instability with a variable thickness (1–20 meters) (Caldwell et al. 1985).

4.5 WETLANDS IN THE PROJECT SITE

According to the NWI database, there are 1,567 acres of wetlands within the Project Site. A breakdown of these wetlands by type and acreage can be found below in **Table 4**. Note that the acreages identified in the “Wetlands in Project Site” column in **Table 4** (NWI wetlands) represents the area of overlap between the Project Site and NYSDEC-mapped wetlands. Actual wetland boundaries from the 2020 wetland field delineation are pending confirmation with NYSDEC.

Wetlands mapped by NYSDEC are regulated through Article 24 of State Environmental Conservation Law (“Freshwater Wetlands Act”). Analysis of freshwater wetland mapping data provided by NYSDEC indicates that there are approximately 750 acres of mapped regulated freshwater wetlands and 22.5 miles of streams within the Project Site (**Table 5** and **Appendix 1, Figure 4**).

Table 4. NWI wetland type and acreage in the Project Site

Wetland Type	Wetlands in Project Site (Acres)
Freshwater Emergent Wetland	224
Freshwater Forested/Shrub Wetland	1,219
Freshwater Pond	31
Riverine	87
Other	6
<i>Total</i>	1,567



WILDLIFE SITE CHARACTERIZATION

April 2021

Table 5. NYSDEC wetlands mapped in the Project Site

Wetland ID	Wetland Class	Mapped Wetlands in Project Site (Acres)
AB-1	II	139
BN-1	III	28
BN-2	II	96
BN-4	II	154
BN-6	II	13
BN-7	II	39
BN-9	II	33
BN-10	III	21
BN-11	III	45
BN-12	II	8
BN-13	II	17
BN-14	III	18
BN-15	II	13
OK-1	I	114
OK-11	II	13
Total		751

4.6 AUDUBON CLIMATE MODELING

The Audubon Climate Modeling Tool¹⁰ uses climate modeling to determine how species range(s) will be impacted as climate change advances over the globe. Stantec analyzed the climate modeling tool for Genesee County regarding threatened and endangered bird species with the potential for occurrence within the Project Site, and the results are presented in **Table 6**.

¹⁰ Audubon Society. Audubon Climate Change Modeling Tool. <https://www.audubon.org/climate/survivalbydegrees/>. Accessed October 2020.



WILDLIFE SITE CHARACTERIZATION

April 2021

Table 6. Audubon Climate Modeling Tool for Genesee County, New York

Season	Warming Scenario (°C)	Moderate Vulnerability Species	Low Vulnerability Species	Stable Species
Summer	+1.5	Sedge Wren	Bald Eagle Northern Harrier King Rail	Pied-billed Grebe Least Bittern Black Tern
	+2.0	Sedge Wren	Bald Eagle Northern Harrier King Rail	Pied-billed Grebe Least Bittern Black Tern
	+3.0	Sedge Wren	Bald Eagle Northern Harrier King Rail	Pied-billed Grebe Least Bittern Black Tern
Winter	+1.5	None	Bald Eagle King Rail	Northern Harrier Pied-billed Grebe
	+2.0	None	Bald Eagle	Northern Harrier Pied-billed Grebe King Rail
	+3.0	None	None	Bald Eagle Northern Harrier Pied-billed Grebe King Rail

No High Vulnerability Species with the potential for occurrence within the Project Site were identified.

The Audubon Climate Modeling Tool indicated that the sedge wren is a moderately vulnerable species in all summer warming scenarios. The bald eagle and northern harrier are low vulnerability species in all summer warming scenarios, and all other species are stable. In winter warming scenarios, the bald eagle is a low vulnerability species for 1.5°C and 2°C warming scenarios and stable in a 3°C warming scenario. All other species present during winter in Genesee County are stable for all warming scenarios.

4.7 CONCLUSIONS

As part of this WSC, Stantec reviewed known species location data provided by NYSDEC and publicly available sources of information on state and federally listed threatened and endangered species and habitats. Based on this desktop assessment, it was found that nine federal/state threatened and endangered animal species have been documented within the vicinity of the Project Site. After reviewing habitat requirements and preferences of those species with habitat features within the Project Site, two of the nine species were found to have the potential to occur within the Project Site. These species include northern harrier and sedge wren, both of which are vulnerable to climate change model warming scenarios, and their habitat is likely to be impacted in the future depending on the rate of climate change. These species were not detected during 2020 BBS.



WILDLIFE SITE CHARACTERIZATION

April 2021

Potential impacts to northern harrier and sedge wren resulting from the proposed Project will be better understood with the following: 1) completion of the wintering birds surveys, expected to be concluded in early spring of 2021; 2) additional consultation with the NYSDEC to obtain further information regarding the significant winter raptor conservation area; and 3) completion of a preliminary Project layout to assess potential Project impacts.



April 2021

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WILDLIFE SITE CHARACTERIZATION

April 2021

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APPENDICES

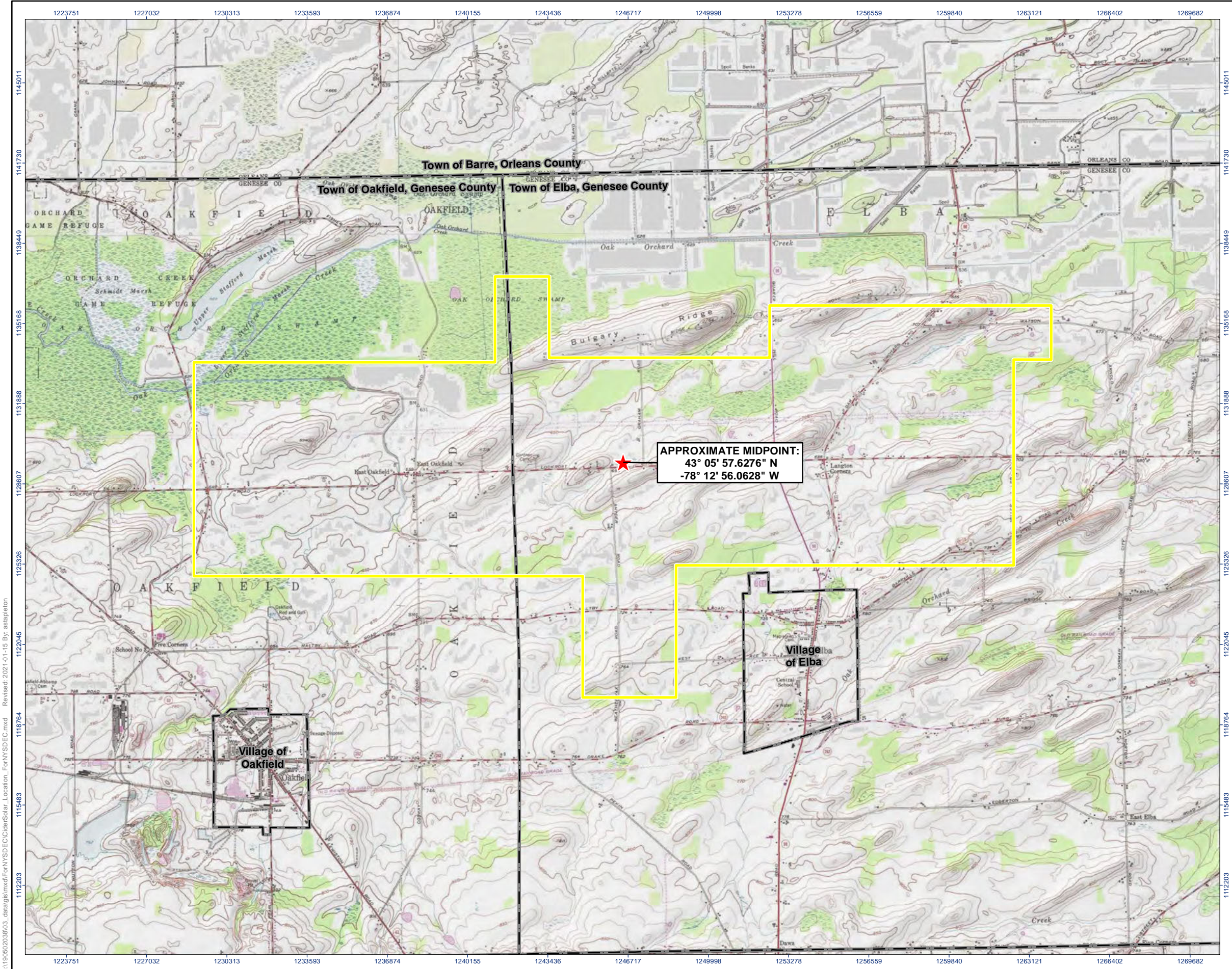


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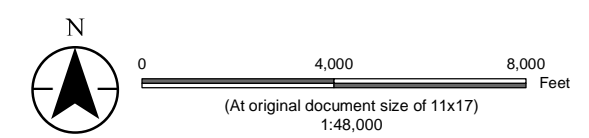
April 2021

Appendix 1 FIGURES





- Legend
- Project Site
 - Municipal Boundary



Notes
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Background: Copyright© 2013 National Geographic Society, i-cubed National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.



Project Location
Towns of Oakfield and Elba
Genesee County, NY

Prepared by EE on 2021-01-15
TR by EP on 2021-01-15
IR Review by JA on 2021-01-15

Client/Project
Hecate Energy
Cider Solar

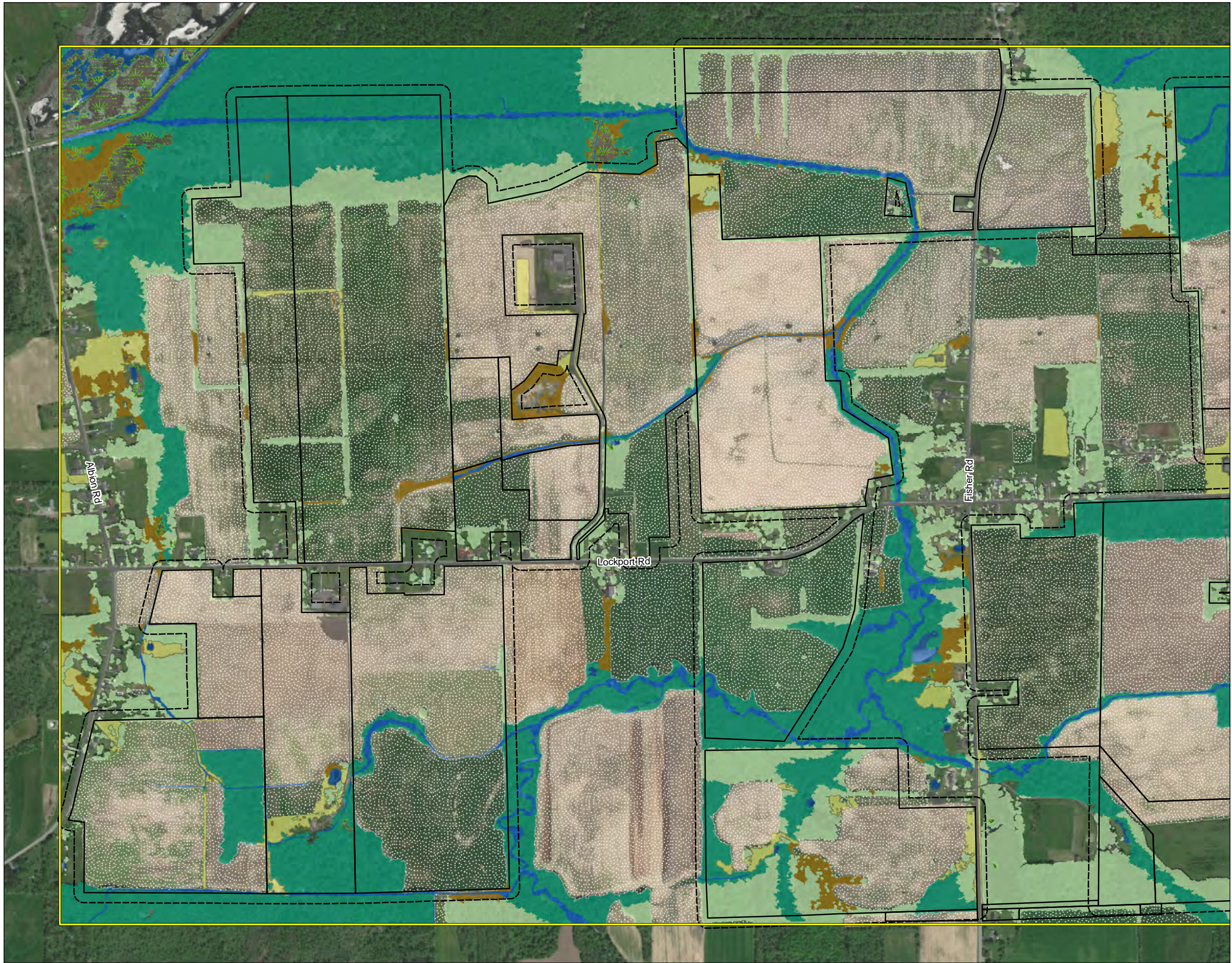
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Figure No.
1

Title
Hecate Cider Solar Farm Project Site
Map 1 of 1

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Legend

- Project Site
- Project Parcels

Existing Features

- Municipal Boundary

Land Cover - Upland

- Active Agriculture Row Crop
- Grassland/Pastureland
- Active Agriculture Hay Field
- Successional Forestland
- Disturbed/Developed Structures
- Successional Scrubland

Land Cover - Wetland

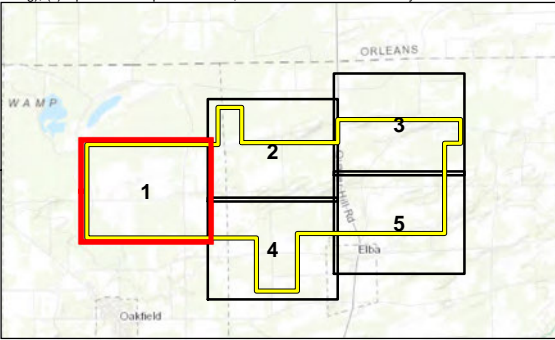
- Wet Meadow/Marshland
- Forested Wetlands
- Streams
- Open Water



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Notes

1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Data Sources: NYS GIS Clearinghouse (<https://gis.ny.gov>), Stantec generated Land Use/Land Cover (LU/LC) categories using high resolution imagery and elevation datasets with object-based image analysis (OBIA). Imagery was purchased on June 6, 2020, from WorldView-3, and DEM data was downloaded from NYS GIS clearinghouse (<https://gis.ny.gov>).
3. Background: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Project Location
Town of Oakfield
Genesee County

Prepared by EE on 2021-01-15
TR by EP on 2021-01-15
IR Review by JA on 2021-01-15

Client/Project

Hecate Energy
Cider Solar Farm

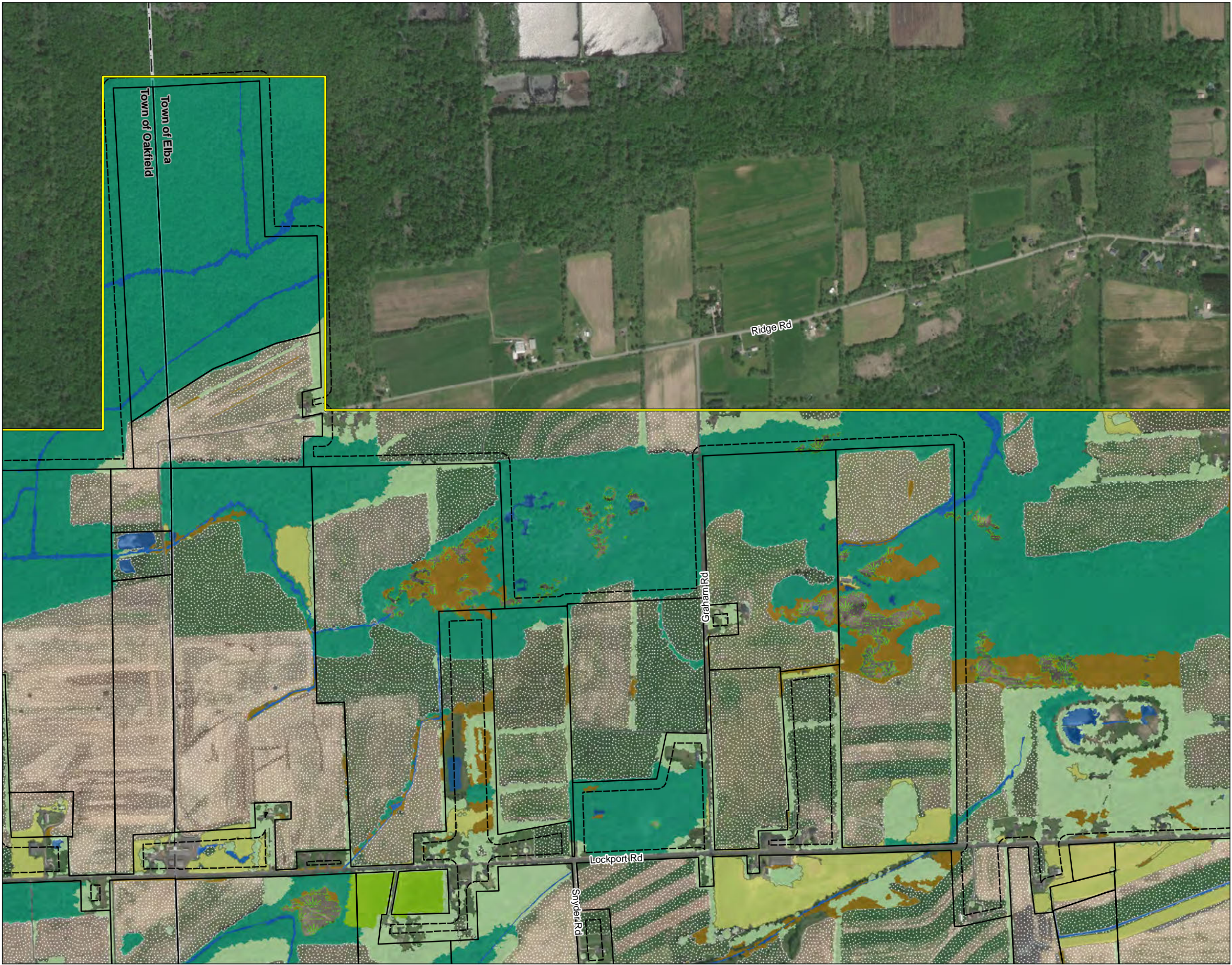
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Figure No.

3

Title

Vegetative Communities
Map 1 of 5



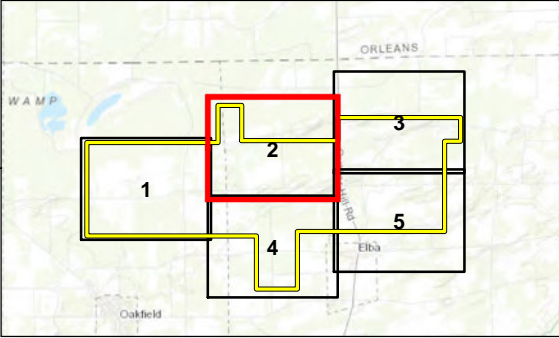
Legend

- Project Site
- Project Parcels
- Existing Features
- Municipal Boundary
- Land Cover - Upland**
 - Active Agriculture Row Crop
 - Grassland/Pastureland
 - Active Agriculture Hay Field
 - Successional Forestland
 - Disturbed/Developed Structures
 - Successional Scrubland
- Land Cover - Wetland**
 - Wet Meadow/Marshland
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(At original document size of 11x17)
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Project Location
Towns of Oakfield & Elba
Genesee County

Prepared by EE on 2021-01-15
TR by EP on 2021-01-15
IR Review by JA on 2021-01-15

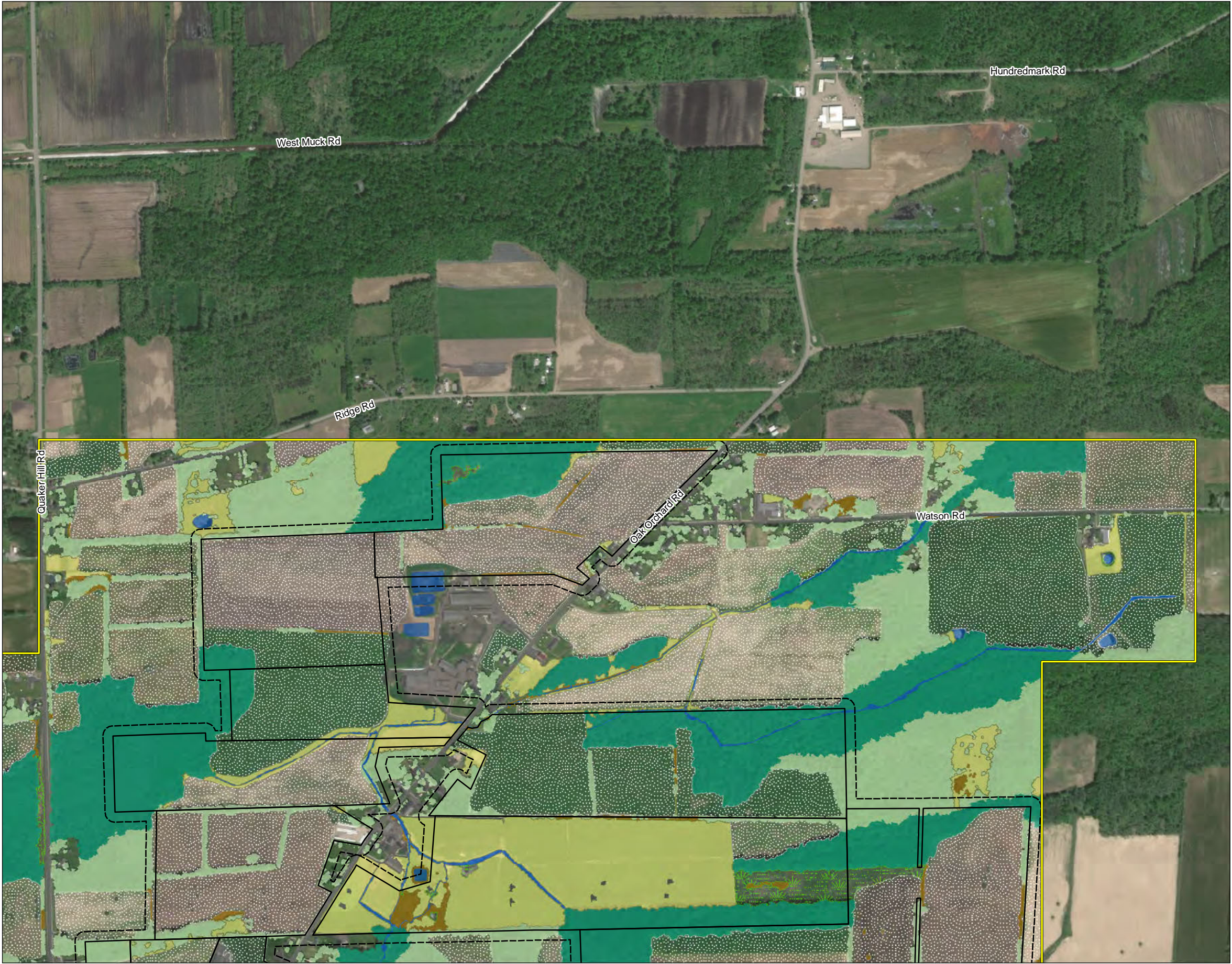
Client/Project
Hecate Energy
Cider Solar Farm

190502038 REV A

Figure No.
3

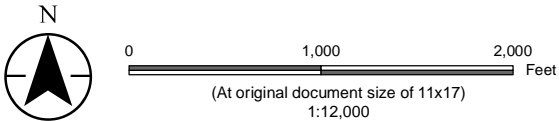
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Vegetative Communities
Map 2 of 5

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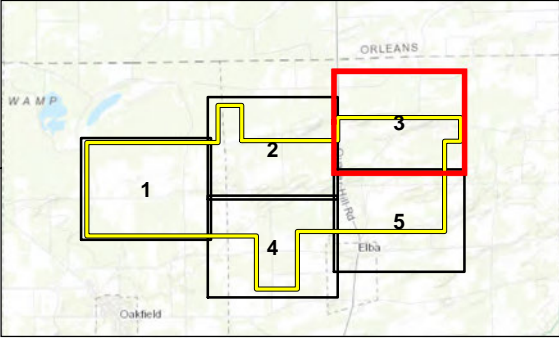


Legend

- Project Site
- Project Parcels
- Existing Features
- Municipal Boundary
- Land Cover - Upland**
 - Active Agriculture Row Crop
 - Grassland/Pastureland
 - Active Agriculture Hay Field
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Notes
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Data Sources: NYS GIS Clearinghouse (<https://gis.ny.gov>), Stantec generated Land Use/Land Cover (LU/LC) categories using high resolution imagery and elevation datasets with object-based image analysis (OBIA). Imagery was purchased on June 6, 2020, from WorldView-3, and DEM data was downloaded from NYS GIS clearinghouse (<https://gis.ny.gov>).
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Project Location
Town of Elba
Genesee County

Prepared by EE on 2021-01-15
TR by EP on 2021-01-15
IR Review by JA on 2021-01-15

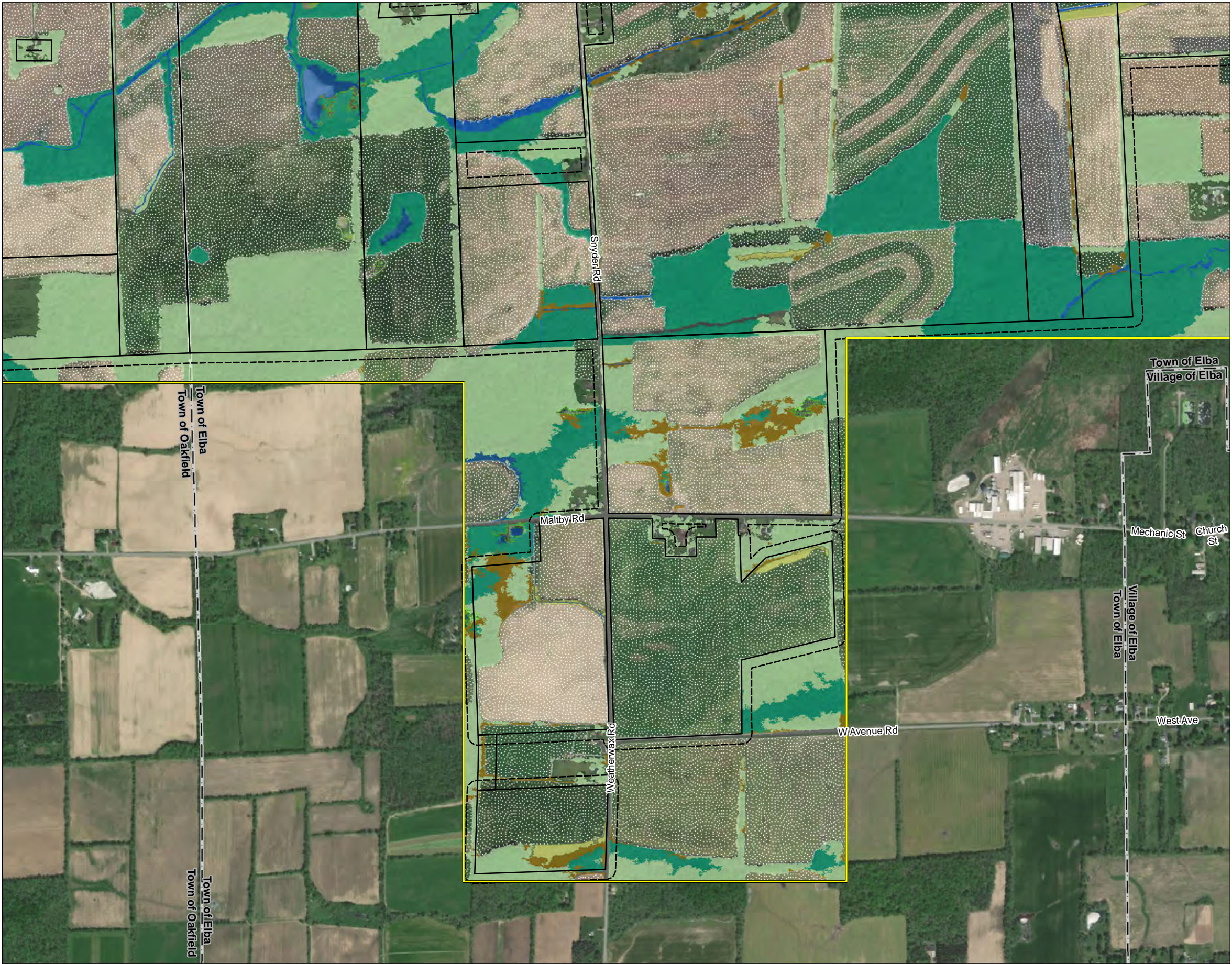
Client/Project
Hecate Energy
Cider Solar Farm

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Figure No.
3

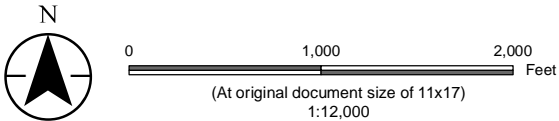
Title
Vegetative Communities
Map 3 of 5

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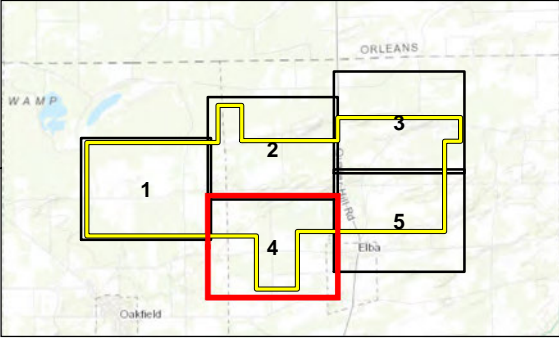


Legend

- Project Site
- Project Parcels
- Existing Features
- Municipal Boundary
- Land Cover - Upland**
 - Active Agriculture Row Crop
 - Grassland/Pastureland
 - Active Agriculture Hay Field
 - Successional Forestland
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 - Successional Scrubland
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 - Streams
 - Open Water



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2. Data Sources: NYS GIS Clearinghouse (<https://gis.ny.gov>), Stantec generated Land Use/Land Cover (LU/LC) categories using high resolution imagery and elevation datasets with object-based image analysis (OBIA). Imagery was purchased on June 6, 2020, from WorldView-3, and DEM data was downloaded from NYS GIS clearinghouse (<https://gis.ny.gov>).
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Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



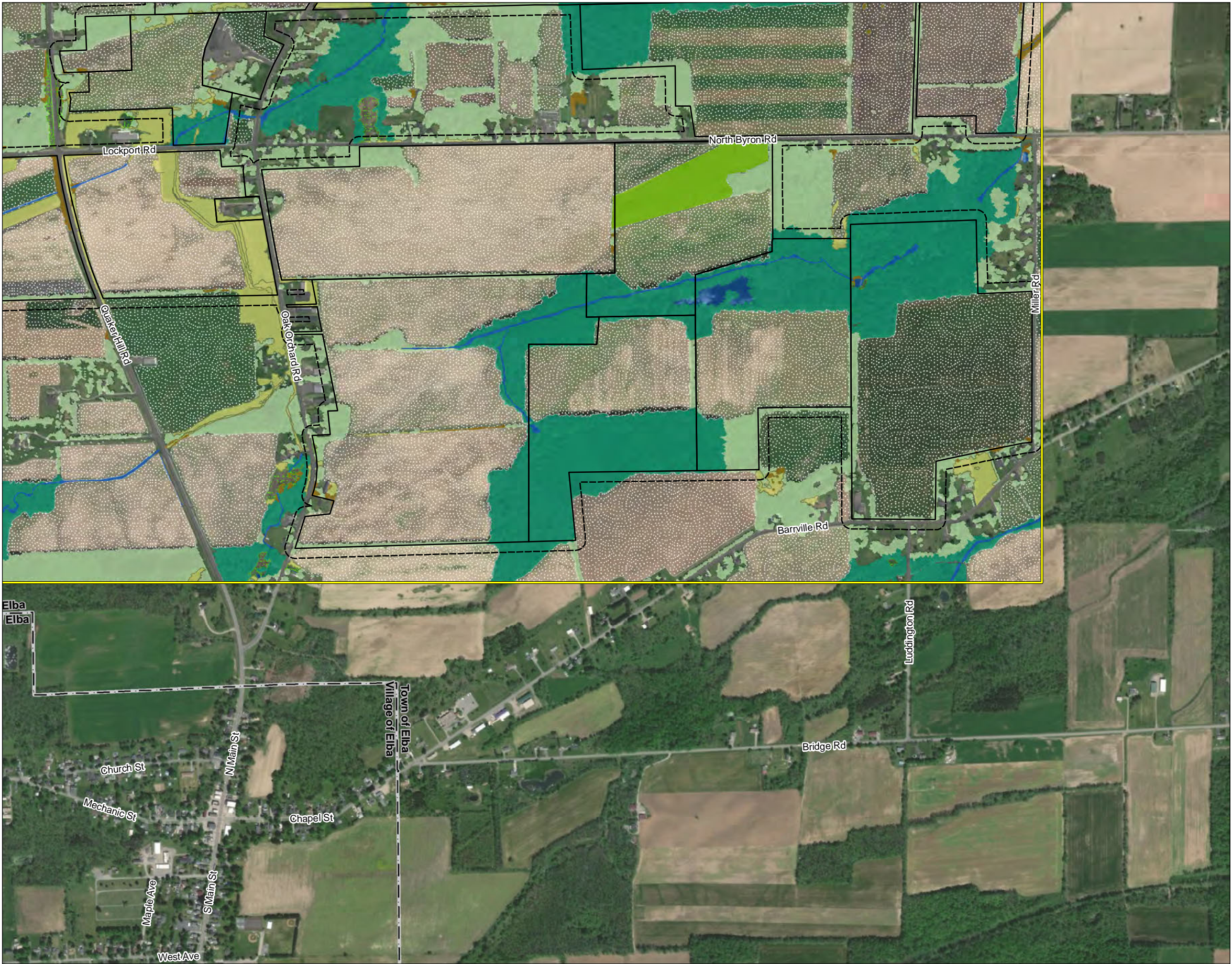
Project Location: Towns of Oakfield & Elba, Genesee County
Prepared by EE on 2021-01-15
TR by EP on 2021-01-15
IR Review by JA on 2021-01-15

Client/Project: Hecate Energy Cider Solar Farm
190502038 REV A

Figure No. 3

Title: Vegetative Communities
Map 4 of 5

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Legend

- Project Site
- Project Parcels

Existing Features

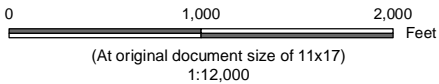
- Municipal Boundary

Land Cover - Upland

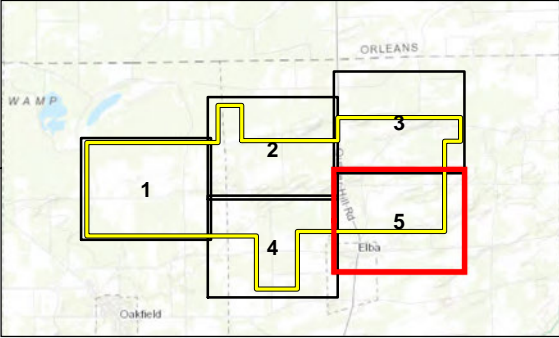
- Active Agriculture Row Crop
- Grassland/Pastureland
- Active Agriculture Hay Field
- Successional Forestland
- Disturbed/Developed Structures
- Successional Scrubland

Land Cover - Wetland

- Wet Meadow/Marshland
- Forested Wetlands
- Streams
- Open Water



Notes
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Data Sources: NYS GIS Clearinghouse (<https://gis.ny.gov>), Stantec generated Land Use/Land Cover (LU/LC) categories using high resolution imagery and elevation datasets with object-based image analysis (OBIA). Imagery was purchased on June 6, 2020, from WorldView-3, and DEM data was downloaded from NYS GIS clearinghouse (<https://gis.ny.gov>).
3. Background: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Project Location
Town of Elba
Genesee County

Prepared by EE on 2021-01-15
TR by EP on 2021-01-15
IR Review by JA on 2021-01-15

Client/Project
Hecate Energy
Cider Solar Farm

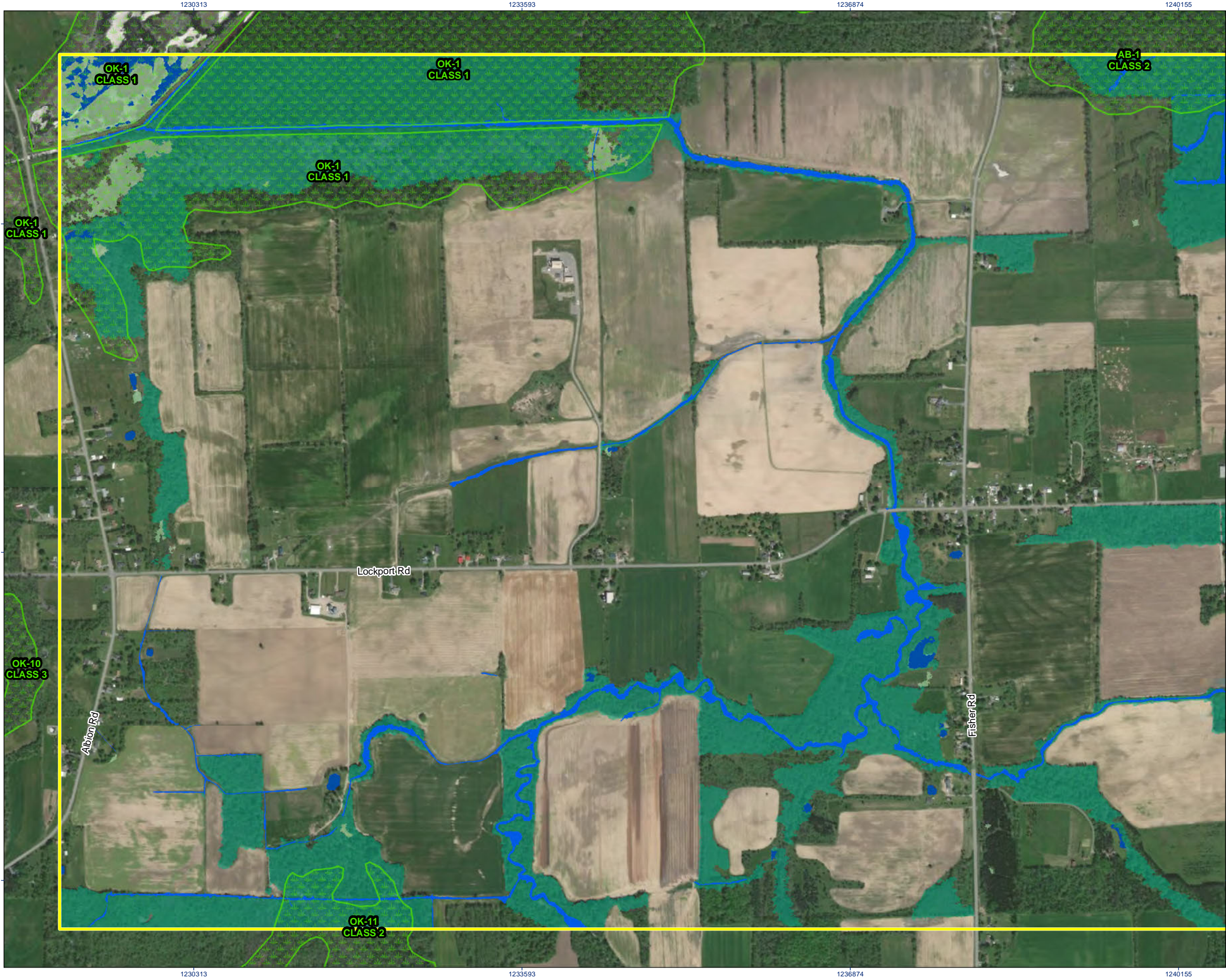
190502038 REV A

Figure No.
3

Title
Vegetative Communities
Map 5 of 5

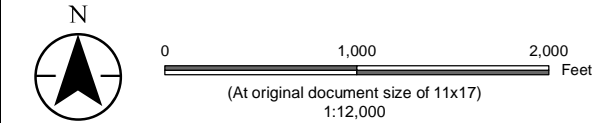
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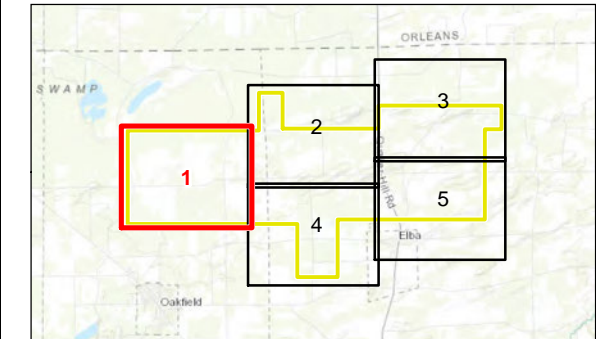


Legend

- Project Site
- Municipal Boundary
- NYSDEC Wetland
- Wet Meadow/Marshland
- Forested Wetlands
- Streams
- Open Water



Notes
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Data Sources: NYSDEC RFW for Genesee County, 1999; NYSDEC Water Quality Classifications, 2010; USFWS NWI Wetlands, 2019
3. Background: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Project Location
Town of Oakfield
Genesee County

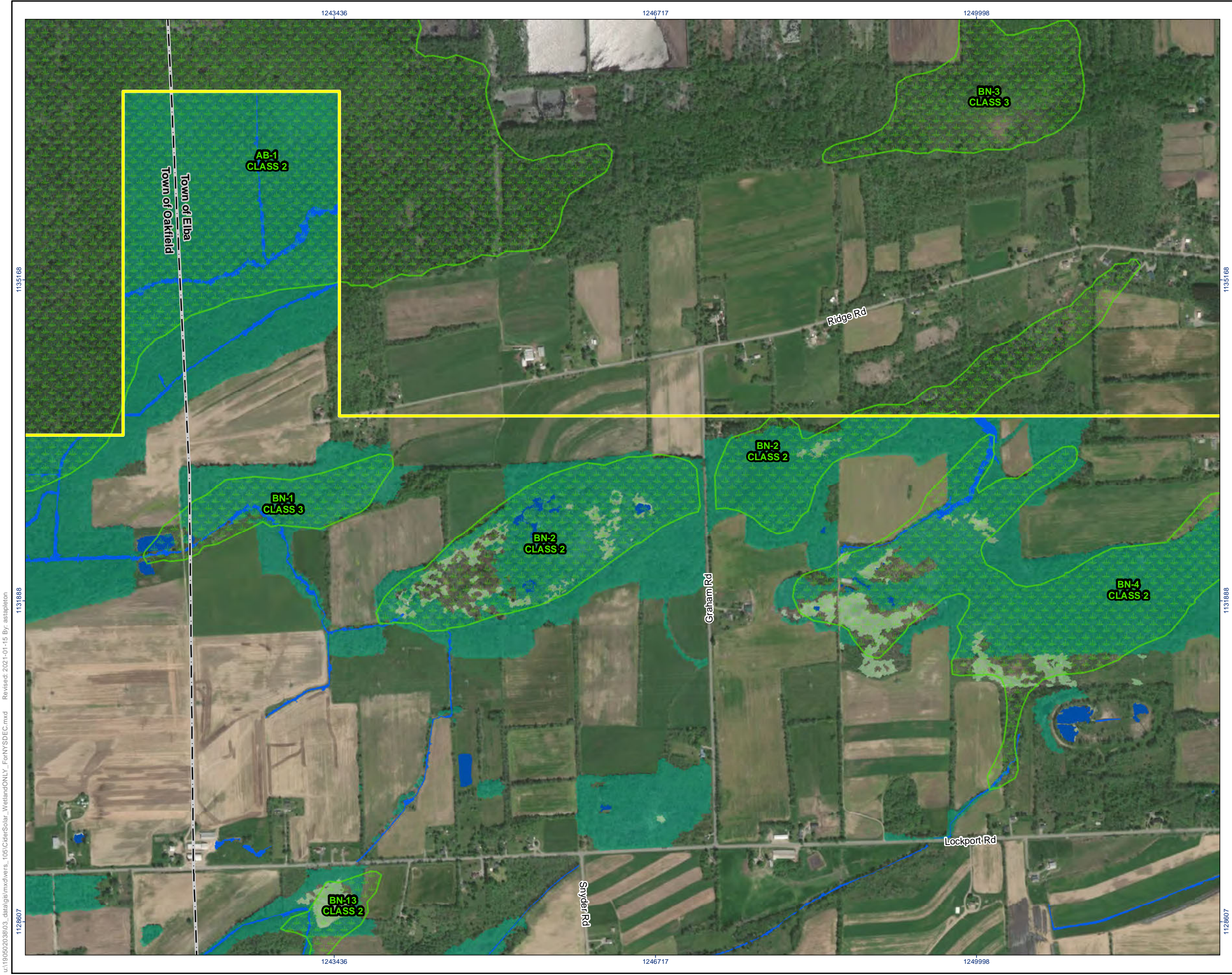
Prepared by EE on 2021-01-15
TR by EP on 2021-01-15
IR Review by JA on 2021-01-15

Client/Project
Hecate Energy
Cider Solar








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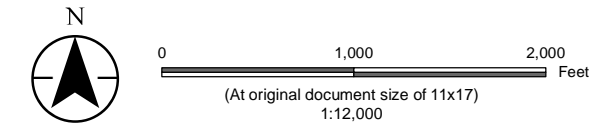
Figure No.
4

Title
Mapped Wetlands
Map 1 of 5

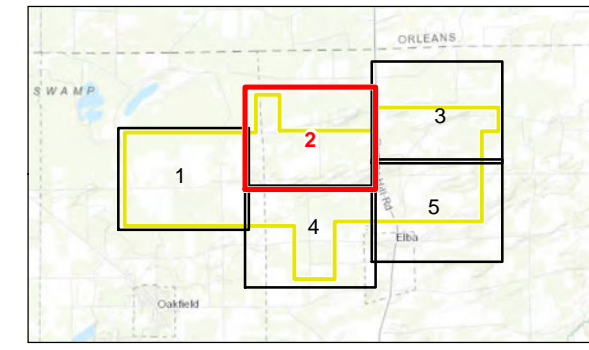


Legend

-  Project Site
-  Municipal Boundary
-  NYSDEC Wetland
-  Wet Meadow/Marshland
-  Forested Wetlands
-  Streams
-  Open Water



Notes
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Data Sources: NYSDEC RFW for Genesee County, 1999; NYSDEC Water Quality Classifications, 2010; USFWS NWI Wetlands, 2019
3. Background: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Project Location
Towns of Oakfield & Elba
Genesee County

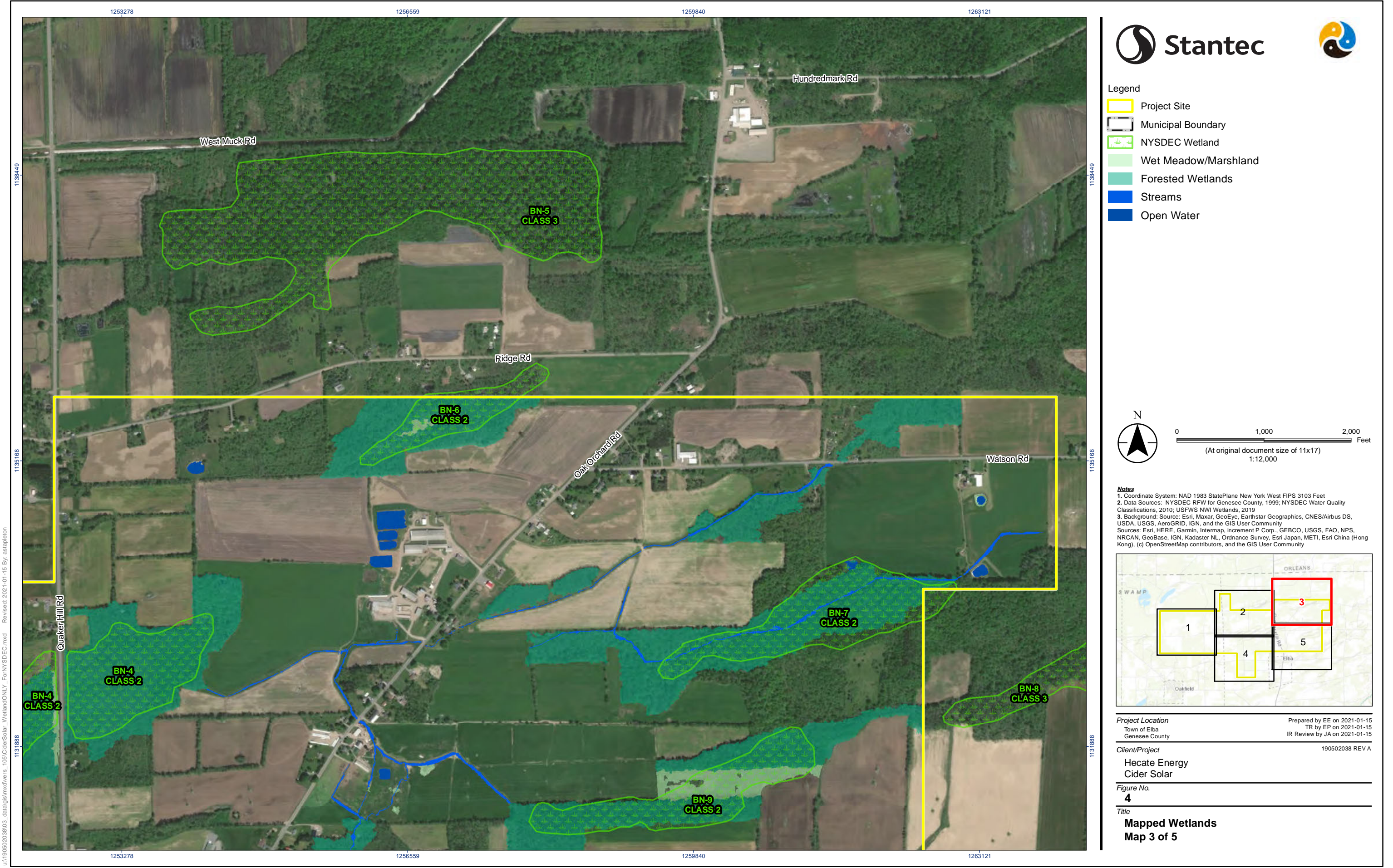
Client/Project
Hecate Energy
Cider Solar

Prepared by EE on 2021-01-15
TR by EP on 2021-01-15
IR Review by JA on 2021-01-15

190502038 REV A

Figure No.
4

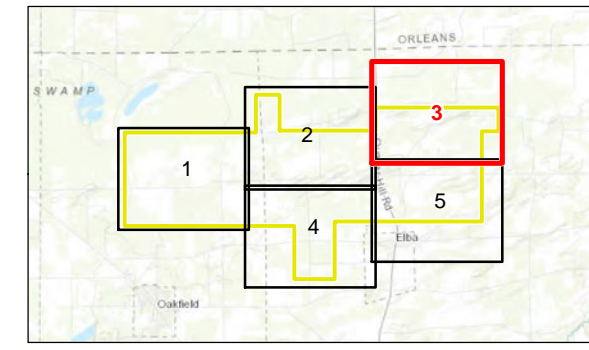
Title
Mapped Wetlands
Map 2 of 5



- Legend
-  Project Site
 -  Municipal Boundary
 -  NYSDEC Wetland
 -  Wet Meadow/Marshland
 -  Forested Wetlands
 -  Streams
 -  Open Water



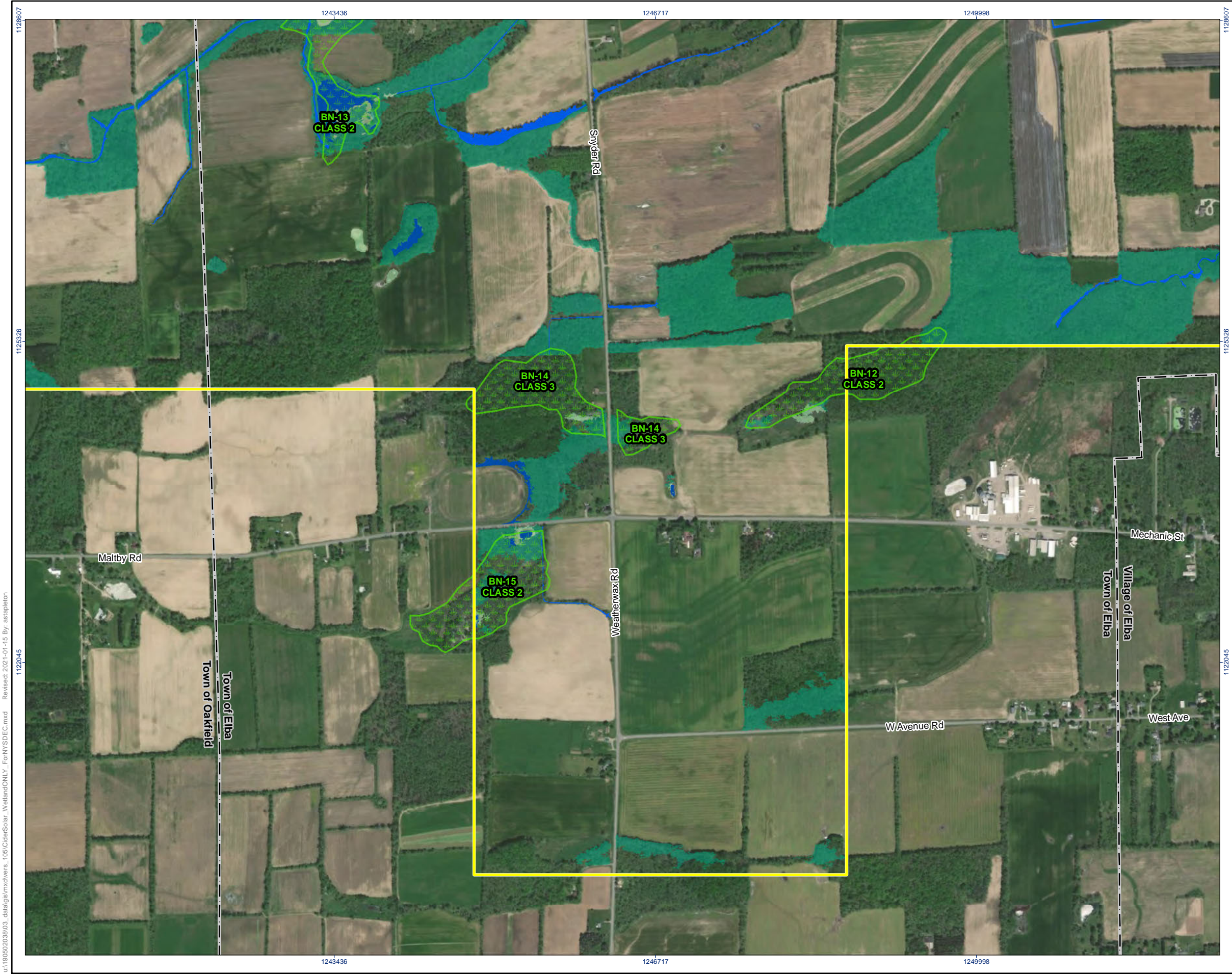
Notes
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Data Sources: NYSDEC RFW for Genesee County, 1999; NYSDEC Water Quality Classifications, 2010; USFWS NWI Wetlands, 2019
3. Background: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Project Location Town of Elba Genesee County	Prepared by EE on 2021-01-15 TR by EP on 2021-01-15 IR Review by JA on 2021-01-15
Client/Project Hecate Energy Cider Solar	190502038 REV A

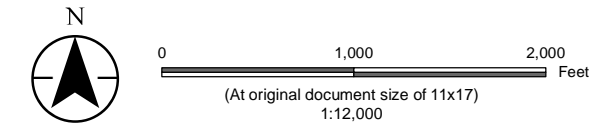
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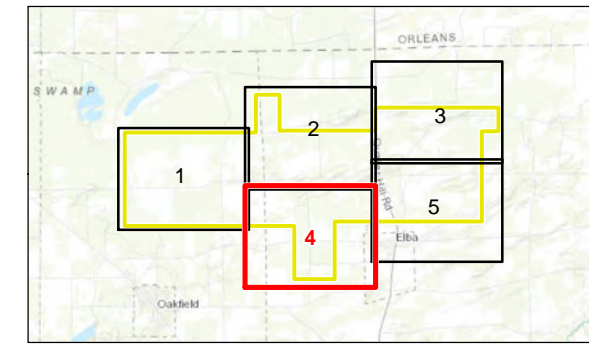


Legend

- Project Site
- Municipal Boundary
- NYSDEC Wetland
- Wet Meadow/Marshland
- Forested Wetlands
- Streams
- Open Water



Notes
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Data Sources: NYSDEC RFW for Genesee County, 1999; NYSDEC Water Quality Classifications, 2010; USFWS NWI Wetlands, 2019
3. Background: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Project Location
Towns of Oakfield & Elba
Genesee County

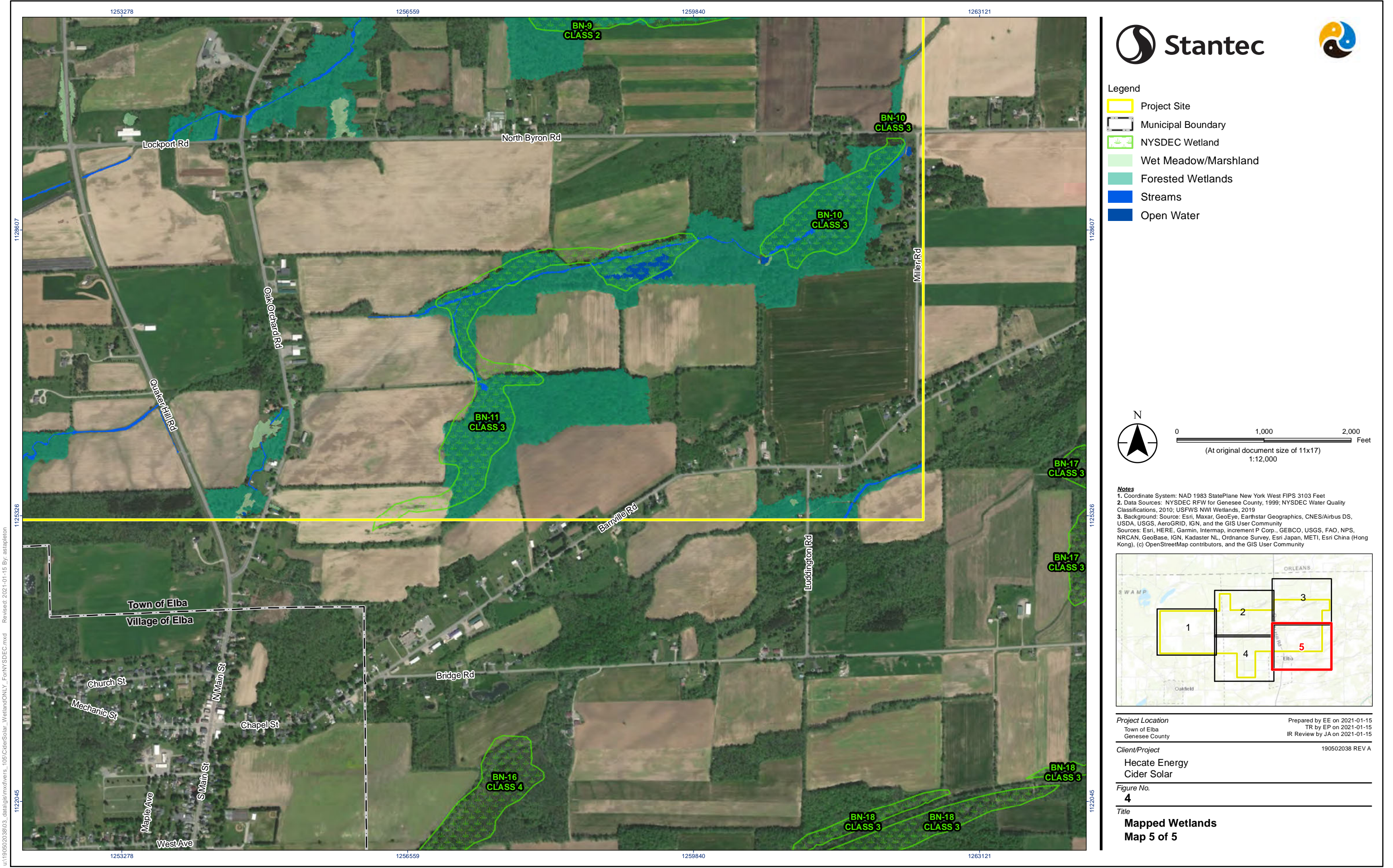
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TR by EP on 2021-01-15
IR Review by JA on 2021-01-15

Client/Project
Hecate Energy
Cider Solar

190502038 REV A

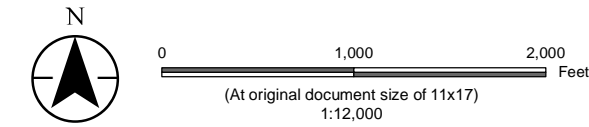
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Title
Mapped Wetlands
Map 4 of 5

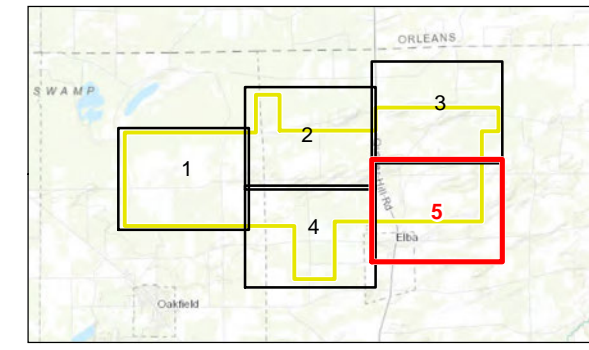


Legend

- Project Site
- Municipal Boundary
- NYSDEC Wetland
- Wet Meadow/Marshland
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Notes
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Data Sources: NYSDEC RFW for Genesee County, 1999; NYSDEC Water Quality Classifications, 2010; USFWS NWI Wetlands, 2019
3. Background: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Project Location
Town of Elba
Genesee County

Prepared by EE on 2021-01-15
TR by EP on 2021-01-15
IR Review by JA on 2021-01-15

Client/Project
Hecate Energy
Cider Solar

190502038 REV A

Figure No.

4

Title

Mapped Wetlands
Map 5 of 5

WILDLIFE SITE CHARACTERIZATION

April 2021

Appendix 2 IPAC AND NYNHP REPORTS





United States Department of the Interior



FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office

3817 Luker Road

Cortland, NY 13045-9385

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

In Reply Refer To:

March 10, 2021

Consultation Code: 05E1NY00-2021-SLI-1813

Event Code: 05E1NY00-2021-E-05758

Project Name: Cider Solar

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Services wind

energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office

3817 Luker Road

Cortland, NY 13045-9385

(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2021-SLI-1813

Event Code: 05E1NY00-2021-E-05758

Project Name: Cider Solar

Project Type: POWER GENERATION

Project Description: Proposed 500mW utility scale solar project

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.096581549999996,-78.21853564999745,14z>



Counties: Genesee County, New York

Endangered Species Act Species

There is a total of 0 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC Information for Planning and Consultation **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Genesee and Orleans counties, New York



Local office

New York Ecological Services Field Office

☎ (607) 753-9334

📅 (607) 753-9699

3817 Luker Road

Cortland, NY 13045-9385

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2202	Threatened

Flowering Plants

NAME	STATUS
Houghton's Goldenrod <i>Solidago houghtonii</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5219	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds
<http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

American Golden-plover *Pluvialis dominica*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Dec 1 to Aug 31

Black-billed Cuckoo *Coccyzus erythrophthalmus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9399>

Breeds May 15 to Oct 10

Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Buff-breasted Sandpiper <i>Calidris subruficollis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9488	Breeds elsewhere
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 20 to Jul 20
Dunlin <i>Calidris alpina arctica</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Henslow's Sparrow <i>Ammodramus henslowii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds May 1 to Aug 31
King Rail <i>Rallus elegans</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8936	Breeds May 1 to Sep 5
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere

Red-headed Woodpecker *Melanerpes erythrocephalus*

Breeds May 10 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Ruddy Turnstone *Arenaria interpres morinella*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Semipalmated Sandpiper *Calidris pusilla*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Short-billed Dowitcher *Limnodromus griseus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9480>

Snowy Owl *Bubo scandiacus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence

across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

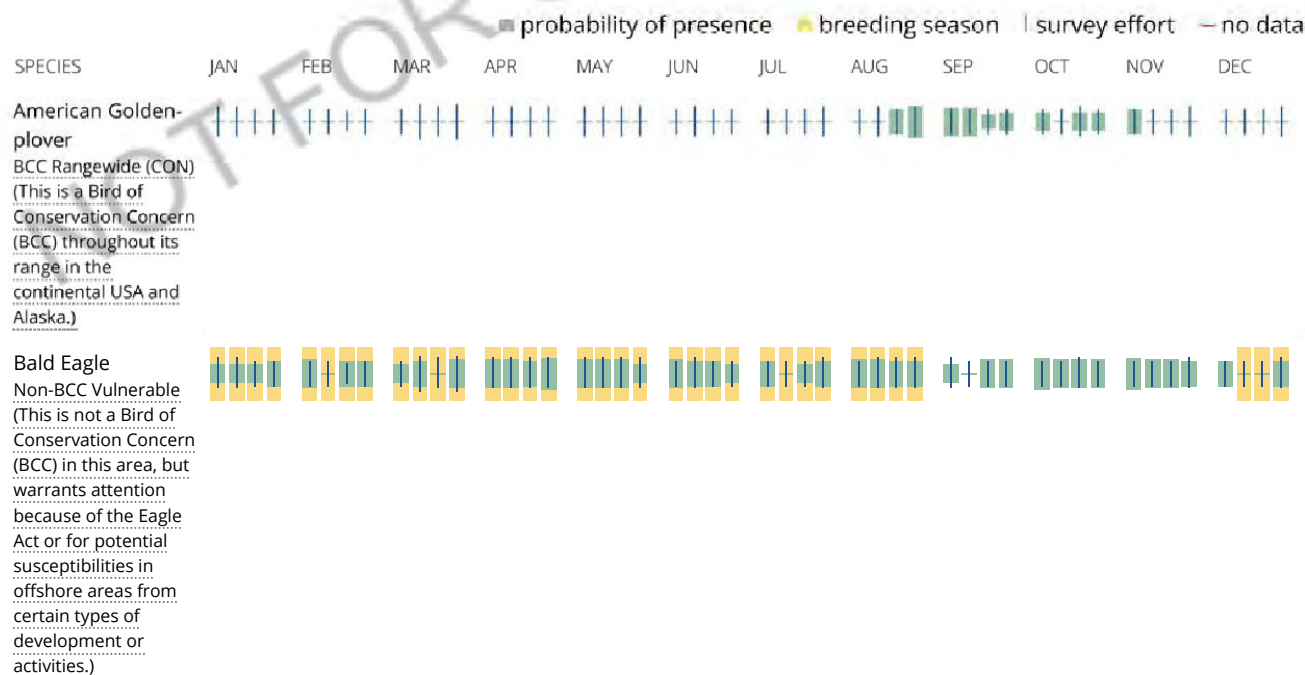
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

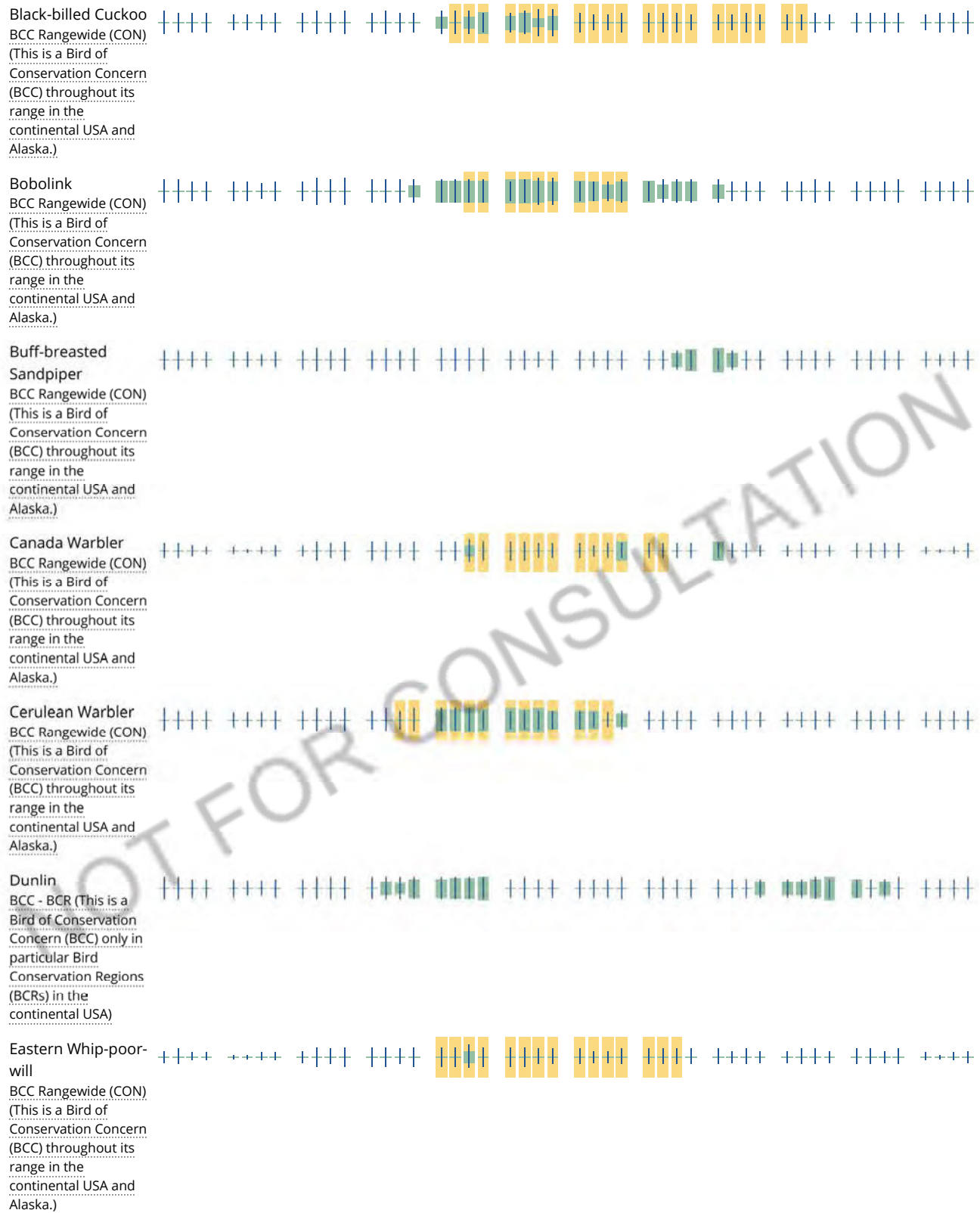
No Data (—)

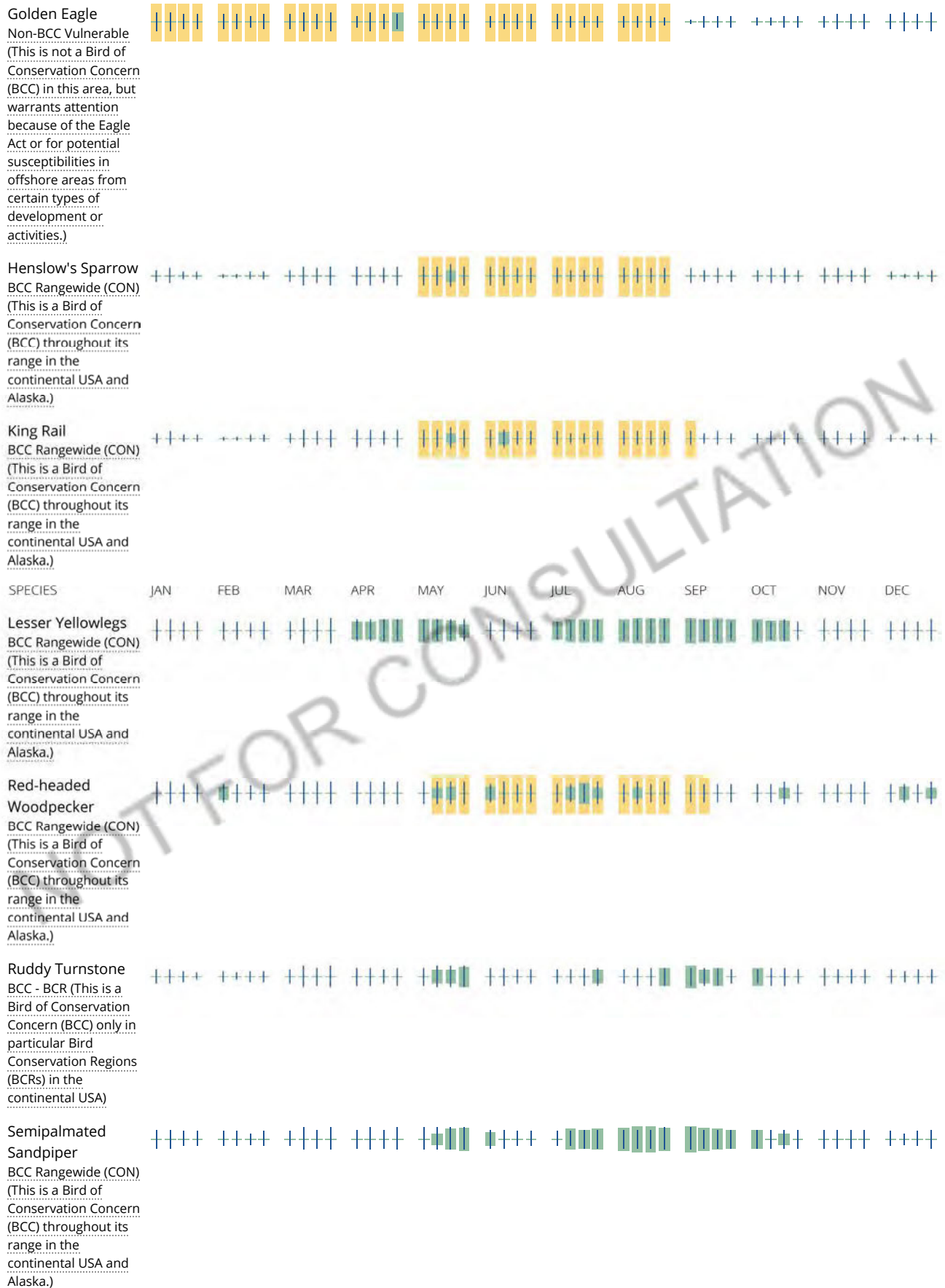
A week is marked as having no data if there were no survey events for that week.

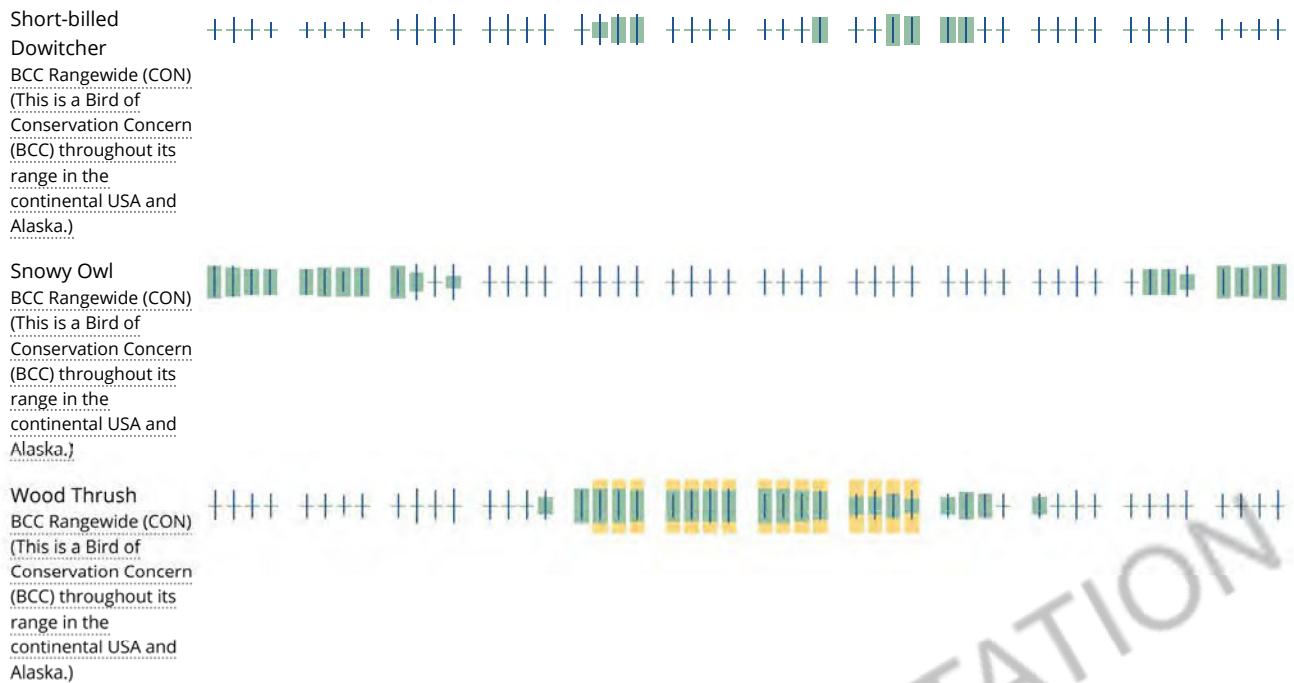
Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.









Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

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Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey



effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

This location overlaps the following National Wildlife Refuge lands:

LAND	ACRES
Iroquois National Wildlife Refuge	10,806.48 acres
<p> (585) 948-5445  (585) 948-9538 1101 Casey Road Basom, NY 14013-9730 https://www.fws.gov/refuges/profiles/index.cfm?id=52540</p>	

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

The area of this project is too large for IPaC to load all NWI wetlands in the area. The list below may be incomplete. Please contact the local U.S. Fish and Wildlife Service office or visit the [NWI map](#) for a full list.

FRESHWATER EMERGENT WETLAND

[PEM1E](#)

[PEM1Fh](#)

[PEM1/SS1E](#)

[PEM1A](#)

[PEM1Eh](#)

[PEM1Ed](#)

[PEM1Ad](#)

[PEM1B](#)

[PEM1Kf](#)

[PEM1F](#)

[PEM1C](#)

[PEM1K](#)

[PEM1/SS1Ed](#)

[PEM1/SS1B](#)

[PEM1Cx](#)

[PEM1/AB4F](#)

[PEM1Bd](#)

[PEM1Fx](#)

[PEM1/SS1Bd](#)

[PEM1Cd](#)

[PEM1/AB4Fh](#)

[PEM1/UBFx](#)

[PEM1/SS1A](#)

[PEM1/UBF](#)

[PEM1/FO5F](#)

[PEM1Ex](#)

[PEM1/5Cx](#)

[PEM1/5E](#)

[PEM1Ax](#)

[PEM1/5C](#)

[PEM1Ch](#)

[PEM2/AB4F](#)

FRESHWATER FORESTED/SHRUB WETLAND

[PFO1/SS1E](#)

[PFO1/SS1Ed](#)

[PFO1A](#)
[PFO1/SS1B](#)
[PFO1B](#)
[PFO1/4E](#)
[PFO1/SS1Bd](#)
[PFO1/EM1Eh](#)
[PFO1/SS1A](#)
[PFO1/SS1C](#)
[PFO1/5F](#)
[PFO1/SS1Cd](#)
[PFO1/EM1Fh](#)
[PFO1/EM1E](#)
[PFO1Ad](#)
[PFO1/4B](#)

FRESHWATER POND

[PAB/UBHh](#)
[PAB4Fh](#)
[PAB4Fx](#)
[PABF](#)

LAKE

[L1UBHh](#)
[L2UBH](#)
[L2UBFx](#)
[L2EM2Gh](#)

OTHER

[Pf](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic

vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

IPaC Information for Planning and Consultation **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Genesee County, New York



Local office

New York Ecological Services Field Office

☎ (607) 753-9334

📠 (607) 753-9699

3817 Luker Road

Cortland, NY 13045-9385

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

THERE ARE NO ENDANGERED SPECIES EXPECTED TO OCCUR AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE")

INDICATES THAT THE BIRD DOES
NOT LIKELY BREED IN YOUR
PROJECT AREA.)

American Golden-plover *Pluvialis dominica*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Dec 1 to Aug 31

Bobolink *Dolichonyx oryzivorus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Jul 31

Buff-breasted Sandpiper *Calidris subruficollis*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9488>

Breeds elsewhere

Cerulean Warbler *Dendroica cerulea*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/2974>

Breeds Apr 20 to Jul 20

Dunlin *Calidris alpina arcticola*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds elsewhere

Lesser Yellowlegs *Tringa flavipes*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9679>

Breeds elsewhere

Red-headed Woodpecker *Melanerpes erythrocephalus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Sep 10

Semipalmated Sandpiper *Calidris pusilla*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Short-billed Dowitcher *Limnodromus griseus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9480>

Snowy Owl *Bubo scandiacus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

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Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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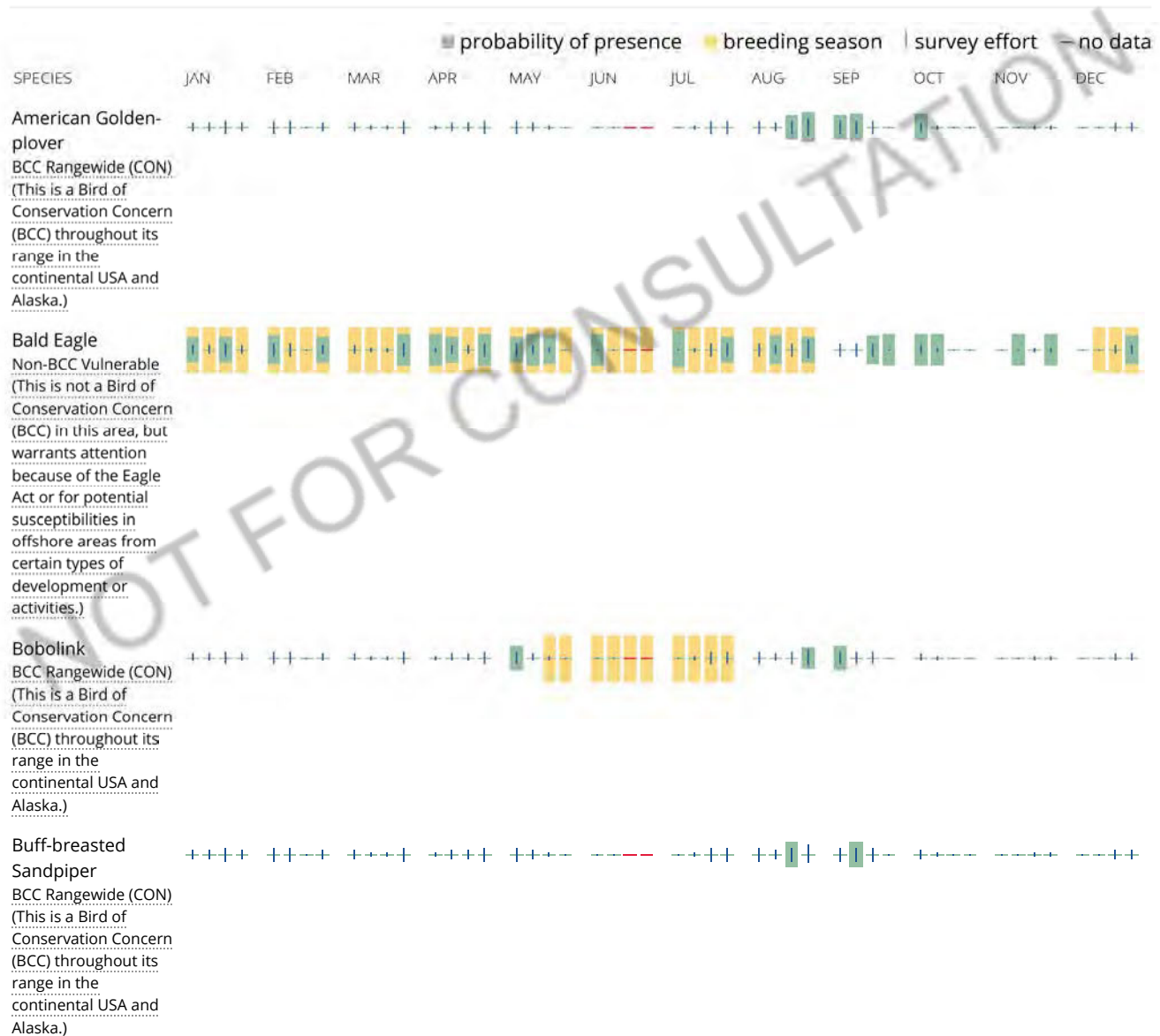
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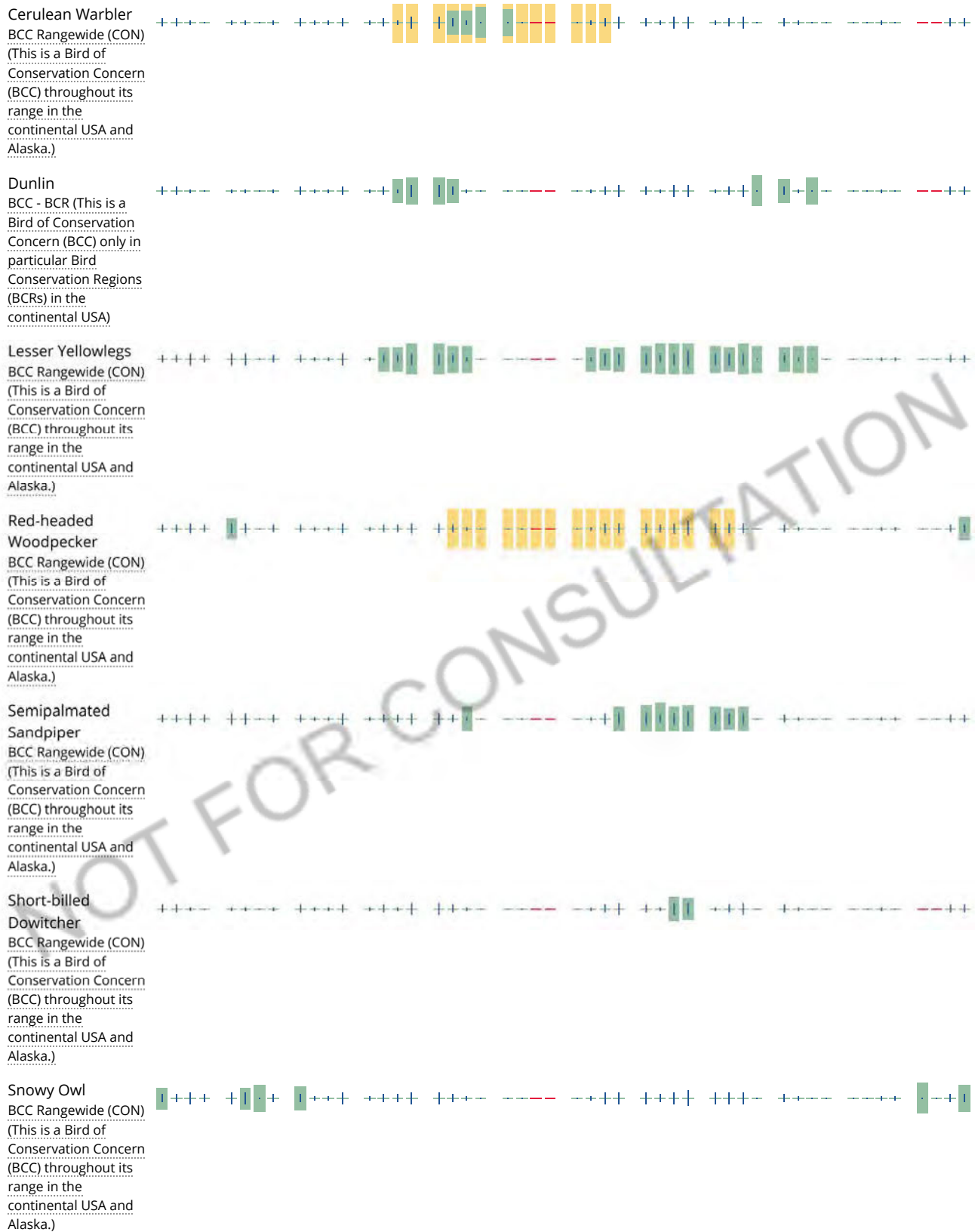
No Data (—)

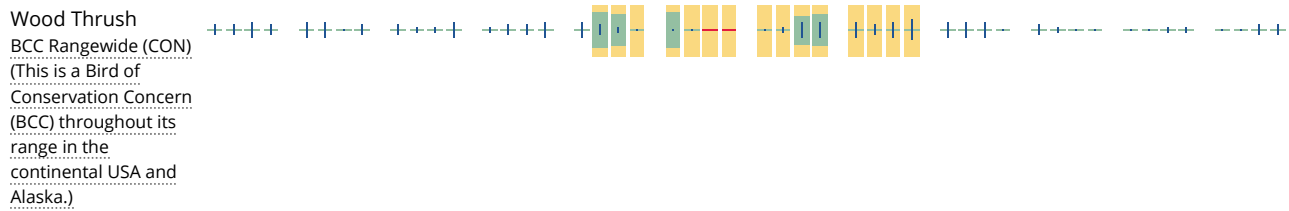
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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

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Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

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What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review.

Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1E](#)

[PEM1Fh](#)

[PEM1A](#)

[PEM1B](#)

[PEM1C](#)

[PEM1/UBFx](#)

FRESHWATER FORESTED/SHRUB WETLAND

[PFO1E](#)

[PFO1Ed](#)

[PFO1B](#)

[PFO1/SS1E](#)

[PFO1Bd](#)

[PSS1E](#)

[PFO4E](#)

[PFO1/SS1B](#)[PFO1A](#)[PFO1/4E](#)[PSS1A](#)[PSS1/EM1E](#)[PFO1/SS1A](#)[PFO1/SS1Bd](#)[PFO1Ad](#)[PSS1/EM1A](#)[PSS1B](#)[PSS1F](#)[PSS1C](#)

FRESHWATER POND

[PUBHh](#)[PUBHx](#)[PUB/EM1Fh](#)[PUBFh](#)

OTHER

[Pf](#)

RIVERINE

[R4SBCx](#)[R2UBHx](#)[R2UBH](#)[R4SBC](#)[R4SBA](#)[R4SBAx](#)[R5UBH](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

May 26, 2020

Daniel Silver
Stantec
61 Commercial Street, Suite 100
Rochester, NY 14614

Re: Hecate Cider Solar Project
County: Genesee Town/City: Elba, Oakfield

Dear Mr. Silver:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 8 Office, Division of Environmental Permits, at dep.r8@dec.ny.gov.

Sincerely,



Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program



**The following state-listed animals have been documented
at or in the vicinity of the project site.**

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing.

For information about any permit considerations for your project, please contact the Permits staff at the NYSDEC Region 8 Office at dep.r8@dec.ny.gov, (585) 226-5400.

Birds

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
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The following species have been documented at the project site.

Northern Harrier <i>Breeding and Nonbreeding</i>	<i>Circus hudsonius</i>	Threatened	15013
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Note: This area is also a state-significant Raptor Winter Concentration Area.

Black Tern <i>Breeding</i>	<i>Chlidonias niger</i>	Endangered	
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Pied-billed Grebe <i>Breeding</i>	<i>Podilymbus podiceps</i>	Threatened	1496
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Sedge Wren <i>Breeding</i>	<i>Cistothorus platensis</i>	Threatened	15722
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Least Bittern <i>Breeding</i>	<i>Ixobrychus exilis</i>	Threatened	10999
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The following species has been documented within 200 yards of the project site.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
Bald Eagle <i>Breeding</i>	<i>Haliaeetus leucocephalus</i>	Threatened	9044

The following species has been documented within 0.2 mile of the project site.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
King Rail <i>Breeding</i>	<i>Rallus elegans</i>	Threatened	5773

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.



The following rare animals have been documented at the project site.

We recommend that potential impacts of the proposed project on these species be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following animals, while not listed by New York State as Endangered or Threatened, are rare in New York and are of conservation concern.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS
Birds			
Sandhill Crane <i>Breeding</i>	<i>Grus canadensis</i>	Protected Bird	Critically Imperiled in NYS
Documented at the project site. 2014-07-11: The birds were observed in a mixed warm season grassland/cool season grassland dominated by timothy (<i>Phleum pratense</i>) and reed canary grass (<i>Phalaris arundinacea</i>).			14273
Prothonotary Warbler <i>Breeding</i>	<i>Protonotaria citrea</i>	Protected Bird	Imperiled in NYS
Documented at the project site. 2014-06-18: Oak Orchard Swamp.			6538

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at www.natureserve.org/explorer, and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).