



Appendix 12-D: Grassland Habitat Management Plan, Cider Solar Farm

GRASSLAND HABITAT MANAGEMENT PLAN, CIDER SOLAR FARM

May 2021

As a good faith effort to promote the enhancement of grassland habitat at the proposed Cider Solar Farm in Oakfield and Elba, Genesee County, New York (Project), Hecate Energy Cider Solar LLC (Hecate) has identified, and is in on-going coordinating with, a Project participant who is interested in voluntarily converting their land from managed row crop agriculture to grassland habitat. This Grassland Management (Plan) provides preliminary details, which will be refined during on-going discussions with the Project participant. The goal of the Plan is to promote use of the property by both grassland bird species and pollinators and to contribute to grassland conservation efforts in the region. This Plan considers other recent and local plans that have been developed for grassland creation, enhancement, or management, as well as the New York State Department of Conservation (NYSDEC) *Best Management Practices for Grassland Birds*¹. Pollinator habitat enhancement considers the *NYSDEC New York State 2020 Pollinator Protection Plan Update*.²

The land under consideration for grassland and pollinator habitat creation and subsequent management is approximately 35 acres of active agriculture, specifically rotational row crops, bordered by successional forest to the north and northwest, and with two hedgerows (Figure 1).

Plan Activities

To create grassland and pollinator habitat, Hecate will work with the landowner to 1) prepare the land for planting; 2) plant an appropriate seed mix; 3) manage the growth of appropriate herbaceous vegetation; 4) implement an appropriate vegetation management regime for woody or invasive growth; and 5) monitor the area.

Step 1: Preparing the Land

Preparing the property for grassland creation will include removal of hedgerows to maintain an open, 35-acre area followed by tilling and fertilizing the property with organic fertilizer.

Step 2: Planting

Desirable grass species for grassland birds will be planted in approximately 80% of the property and may include orchardgrass (*Dactylis glomerata*), timothy (*Phleum pratense*), bluegrass (*Poa* spp.) and/or smooth brome (*Bromus inermis*)³. Specific seed mixes will be determined in consultation with the property owner based on *NYSDEC's Best Management Practices for Grassland Birds* and *Cornell's Hayfield Management and Grassland Bird Conservation*. Legumes and other plants, including species desirable for pollinators, will make up the remaining 20% of the property. For pollinator species, the edges of the 35-acre grassland habitat management area will be planted with a diversity of native floral-rich species such that flowering plants are available throughout the growing season. Species planted will consider the Pollinator Value assigned by the United States Department of Agriculture Natural Resources Conservation Service, New York.⁴

Step 3: Managing Vegetation Growth

Mowing within the grassland habitat will occur as early within the mowing window as circumstances and conditions allow but prior to the grassland bird nesting season from April 23 to August 15¹ to prevent the

¹ NYSDEC. *Best Management Practice for Grassland Birds*. [Best Management Practices for Grassland Birds - NYS Dept. of Environmental Conservation](#). Accessed 1 April 2021.

² NYSDEC. *2020 Pollinator Protection Plan Update*. <https://agriculture.ny.gov/system/files/documents/2021/02/pollinatorreport.pdf>. Accessed 1 April 2021.

³ Cornell University Cooperative Extension. *Hayfield Management and Grassland Bird Conservation*. [Hayfield.indd \(nyfoa.org\)](#). Accessed 1 April 2021.

⁴ <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ny/technical/?cid=stelprdb1044847>. Accessed 1 April 2021.

GRASSLAND HABITAT MANAGEMENT PLAN, CIDER SOLAR FARM

May 2021

maturation and release of seeds from certain forbs. At least one-third of the mowed vegetation will be chopped up and left on site after each mowing.

In year 1 through year 5, mowing will occur up to twice each growing season on a yearly basis to prevent the grassland from reverting to dense shrubland. The first mowing event of each year will take place before the grassland bird nesting season to prevent the loss of nests, eggs, or young. A second mowing event will occur after as soon after August 15 as possible to promote grass regeneration. In some years, only the second mowing event may be possible if the ground is too saturated in early spring.

After year 5, one-third of the property will be mowed to a height no shorter than 8 inches. The portion mowed to this height will be rotated each year. Vegetation management is the responsibility of Hecate.

With the exception of mechanized vehicles for mowing, use of mechanized vehicles including snowmobiles and ATVs will be limited and confined to the winter season from November 1 to March 1 to limit disturbance to both grassland birds and habitat.

Step 4: Management of Woody Vegetation and Invasive Species

Any invasive woody species found to be growing will be removed by the roots and discarded away from the property. Woody plants on the edges of the successional forest will be removed via brush-hogging or similar method to prevent shrub encroachment. The following species may require spot-mowing or other form of mechanical removal after August 15 to control their encroachment into the property: brown knapweed (*Centaurea jacea*), pale swallowwort (*Cynanchum rossicum*), black swallowwort (*Cynanchum louiseae*), burdock (*Arctium*), or goldenrods (*Solidago* spp.).³ Pesticides will not be used for management.

Step 5: Monitoring

Hecate will obtain rights to maintain the property with terms agreed upon by the landowner, allowing Project monitors to observe the success of the grassland creation and management similar to and as part of the monitoring which will occur during Project restoration monitoring activities. The land will be monitored each year for the first five years to assess whether the management actions have achieved habitat conversion. Data collected during monitoring will include, but will not be limited to, the vegetative species present, the approximate vegetation height for each portion of the property, areas that may require clearing or other maintenance, any disturbance observed, bird and pollinator species present; and any nesting behaviors exhibited by birds.

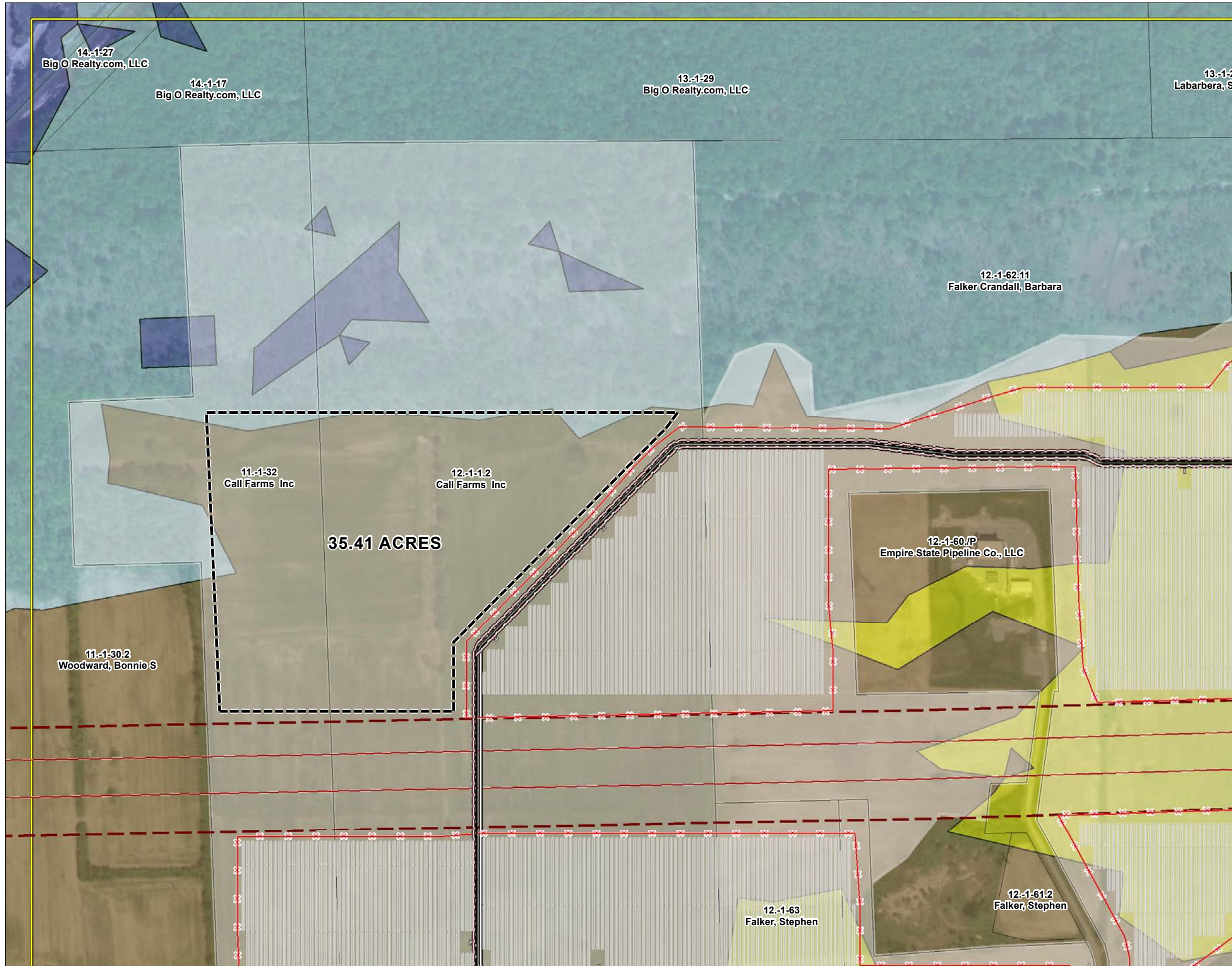
Success criteria for habitat creation and management considers New York Audubon's *A Plan for Conserving Grassland Birds in New York*⁵ and will include the following criteria:

1. Field size maintained to > 25 acres
2. Woody vegetation maintained to < 5% of total cover
3. Forb component maintained to < 20%
4. Vegetation height maintained from 15 to 60 centimeters

If grassland creation or management does not meet the above criteria within the first 5 years, Hecate and/or the Project monitor will work with the property owner, and other local entities, academia, and/or NYSDEC, as appropriate, to revise the plan appropriately.

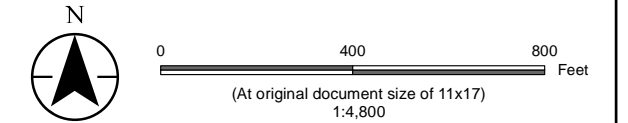
⁵ Morgan and Burger. 2008. *A Plan for Conserving Grassland Birds in New York*: Final Report to the New York State Department of Environmental Conservation under contract #C005137. https://ny.audubon.org/sites/default/files/conservation_plan_for_grassland_birds_in_ny.compressed.pdf. Accessed 8 April 2021.

U:\190502038\03_data\gis\mxd\190502038_GrasslandHabitat_CallFarm.mxd Revised: 2021-03-30 By: eeshenour

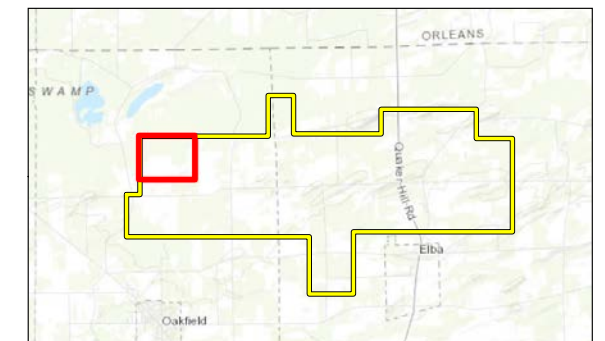


Legend

- Project Area
- Proposed Project
 - PV Panel Array
 - Collection Line
 - Fence Line
 - Access Road
 - Inverter
- Existing Features
 - Transmission Line
 - Right-of-Way
 - Participating Parcel
 - Parcel Boundary
- NLCD Land Cover Classification
 - Pasture/Hay
 - Cultivated Crops
 - Woody Wetlands
 - Emergent Herbaceous Wetlands



Notes
 1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
 2. Data Sources: NYS GIS Clearinghouse (<https://gis.ny.gov>), USDA NRCS (<http://www.nrcs.usda.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: Towns of Oakfield & Elba, Genesee County, NY
 Prepared by EE on 2021-03-30, IR by SG on 2021-03-30

Client/Project: Hecate Energy Cider Solar LLC, Cider Solar Farm
 190502038 REV B

Figure No.: 1

Title: Call Farms Property – Potential Grassland Management Area