

Full Environmental Assessment Form Part 1

MARLBOROUGH SOLAR, LLC
Milton Turnpike Solar Farm
132 Milton Turnpike (UC Route 10)
Town of Marlborough
Ulster County, New York

July 26, 2018

Revised: October 18, 2018



Engineers
Land Surveyors
Planners
Environmental Professionals
Landscape Architects

Prepared for:
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Prepared by:

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PROJECT DESCRIPTION

PROJECT DESCRIPTION

The Applicant, Marlborough Solar, LLC, is proposing the construction of a 2.6 megawatt (MW), direct current (DC) solar energy farm (ground-mounted photovoltaic or "PV" system) in the western portion of an 87.8-acre parcel located at 132 Milton Turnpike (Ulster County Route 10) in the Town of Marlborough, Ulster County. The subject parcel is identified on the Town of Marlborough Tax Map as Section 103.1 Block 1 Lot 33.1.

For the purpose of this FEA, the project area is defined as the entire 87.8-acre tax parcel. The project affects only 17+/- acres in the western portion of the parcel, including tree cutting (leaving stumps in place). The actual physical ground disturbance is approximately 12.9 acres and is limited to the installation of the poles on which the panels are located, power line trenching, inverter pad, construction entrance, gravel access drive, stormwater management components, and tree clearing (including stump removal). The NYS Department of Environmental Conservation (NYSDEC) has determined that solar panels do not constitute impervious surface for stormwater management purposes. The project results in new impervious surface of 0.63 acre. Please refer to the Existing Conditions Plan and Site Plan. The Applicant will lease approximately 12 acres from the property owner for operation of the proposed solar energy farm.

The parcel is in the Rural Agricultural (R-Ag-1) zoning district. Large-scale solar energy systems are allowed in the R-Ag-1 zoning district through the issuance of a special use permit by the Planning Board. The proposed site plan complies with the requirements of the zoning regulations, including the specific requirements for a large-scale solar energy system per Section 155-32.2.I.

The FEA was completed utilizing the NYSDEC EAF Mapper, based on the entire project parcel. Therefore, the automatic responses provided by the EAF Mapper pertain to the entire parcel. The EAF Mapper tool sometimes indicates limited availability for certain digital data. Further project details are provided in the Endnotes section of this document for clarification of, or reference information used in the response.

FULL ENVIRONMENTAL ASSESSMENT FORM (FEAF) PART 1 WITH ENDNOTES

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Milton Turnpike Solar Farm		
Project Location (describe, and attach a general location map): 132 Milton Turnpike, Town of Marlborough, Ulster County, NY; Portion of Tax Parcel Section 103.1 Block 1 Lot 33.1; refer to Figures 1 and 2.		
Brief Description of Proposed Action (include purpose or need): The Applicant, Nexamp Solar, LLC, is proposing the construction of a 2.6 megawatt (MW), direct current (DC) solar energy farm (ground-mounted photovoltaic or “PV” system) on a portion of an 87.8-acre parcel located at 132 Milton Turnpike in the Town of Marlborough. For the purpose of this FEAF, the project area consists of the entire 87.8 acre parcel. The project affects a 17+/- acre portion of the parcel, including tree cutting (leaving stumps in place). The actual physical ground disturbance is approximately 12.9 acres and is limited to the installation of the poles on which the panels are located, power line trenching, inverter pad, construction entrance, access drive, stormwater management components, and tree removal (including stump removal). Please refer to the Existing Conditions Plan and Site Plan.		
Name of Applicant/Sponsor: Marlborough Solar, LLC (Michael Cucchiara, Business Development Manager)	Telephone: 978-296-3338	
	E-Mail: mcucchiara@nexamp.com	
Address: 4 Liberty Square		
City/PO: Boston	State: MA	Zip Code: 02109
Project Contact (if not same as sponsor; give name and title/role): Same as Applicant	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): Jeffrey Aldrich	Telephone: 845-590-8587	
	E-Mail:	
Address: 132 Milton Turnpike		
City/PO: Milton	State: NY	Zip Code: 12547

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No or Village Board of Trustees	PILOT agreement	To be determined
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Site Plan, Special Use Permit	Jun 2017
c. City Council, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Marlboro School District for PILOT agreement	To be determined
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Ulster County DPW for access; Ulster County Planning GML 239m; PILOT agreement	To be determined
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC GP-0-15-002; NYSEDA funding (NY-Sun program)	To be determined
h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
i. Coastal Resources. i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No iii. Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐ Yes ☒ No

- If Yes, complete sections C, F and G.
- If No, proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☒ Yes ☐ No
The 2017 Comprehensive Plan acknowledges the importance of solar and other energy conservation techniques (Section VI, Land Use Recommendations, Subsection G, Community Facilities and Utilities, page 36).
 If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐ Yes ☒ No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐ Yes ☒ No

If Yes, identify the plan(s):

Hudson River Valley National Heritage Area; Orange County Greenway Compact Community

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐ Yes ☒ No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☒ Yes ☐ No

If Yes, what is the zoning classification(s) including any applicable overlay district?

Parcel is being rezoned to Rural Agricultural District (R-AG-1) by the Town Board from Residential (R-1).

b. Is the use permitted or allowed by a special or conditional use permit? ☒ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☒ No

If Yes,

i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Marlboro School District

b. What police or other public protection forces serve the project site?

Marlborough Police Department with support from Ulster County Sheriff's Department and NYS Police

c. Which fire protection and emergency medical services serve the project site?

Milton Fire District

d. What parks serve the project site?

NA _____

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? _____

b. a. Total acreage of the site of the proposed action? _____ 87.8 acres Refer to Endnote 1.

b. Total acreage to be physically disturbed? _____ 12.9 acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ 87.8 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☒ No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☒ No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) _____

ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No

iii. Number of lots proposed? _____

iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐ Yes ☒ No

i. If No, anticipated period of construction: _____ 4 months

ii. If Yes:

- Total number of phases anticipated _____

- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year

- Anticipated completion date of final phase _____ month _____ year

- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, show numbers of units proposed.				
	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes,	
i. Total number of structures _____ 1 (solar farm inverter station) ii. Dimensions (in feet) of largest proposed structure: _____ 7' height; _____ 13' width; and _____ 29' length iii. Approximate extent of building space to be heated or cooled: _____ 0 square feet	

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes,	
i. Purpose of the impoundment: _____ ii. If a water impoundment, the principal source of the water: <input type="checkbox"/> Ground water <input type="checkbox"/> Surface water streams <input type="checkbox"/> Other specify: _____ iii. If other than water, identify the type of impounded/contained liquids and their source. _____ iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____	

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) If Yes:	
i. What is the purpose of the excavation or dredging? _____ ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site? • Volume (specify tons or cubic yards): _____ • Over what duration of time? _____ iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____ _____ _____ iv. Will there be onsite dewatering or processing of excavated materials? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe. _____ _____ _____ v. What is the total area to be dredged or excavated? _____ acres vi. What is the maximum area to be worked at any one time? _____ acres vii. What would be the maximum depth of excavation or dredging? _____ feet viii. Will the excavation require blasting? <input type="checkbox"/> Yes <input type="checkbox"/> No ix. Summarize site reclamation goals and plan: _____ _____ _____ _____	

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Refer to Figure 3 and Endnote 4. If Yes:	
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____ _____ _____	

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe: _____

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? ☐ Yes ☒ No
If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐ Yes ☐ No
If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No
- Do existing lines serve the project site? ☐ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☐ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐ No
If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐ Yes ☒ No
If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No

<ul style="list-style-type: none"> • Do existing sewer lines serve the project site? _____ • Will line extension within an existing district be necessary to serve the project? _____ <p>If Yes:</p> <ul style="list-style-type: none"> • Describe extensions or capacity expansions proposed to serve this project: _____ _____ 	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
<p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____</p> <p>If Yes:</p> <ul style="list-style-type: none"> • Applicant/sponsor for new district: _____ • Date application submitted or anticipated: _____ • What is the receiving water for the wastewater discharge? _____ 	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans): _____ _____</p>	
<p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____ _____</p>	
<p>e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? _____</p> <p>If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel? _____ Square feet or <u>0.63</u> acres (impervious surface) Refer to Endnote 2. _____ Square feet or <u>87.8</u> acres (parcel size)</p> <p>ii. Describe types of new point sources. <u>gravel access driveway</u></p> <p>iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)? <u>Driveway runoff will be treated onsite in vegetated swales and will ultimately discharge to offsite swale along New Road.</u></p> <ul style="list-style-type: none"> • If to surface waters, identify receiving water bodies or wetlands: _____ <u>offsite swale</u> • Will stormwater runoff flow to adjacent properties? _____ 	
<p>iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____</p>	
<p>f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? _____</p> <p>If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____</p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____</p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____</p>	
<p>g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? _____</p> <p>If Yes:</p> <p>i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) _____</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs) 	

<p>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate methane generation in tons/year (metric): _____</p> <p>ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____</p>			
<p>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____</p>			
<p>j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. When is the peak traffic expected (Check all that apply): <input type="checkbox"/> Morning <input type="checkbox"/> Evening <input type="checkbox"/> Weekend <input type="checkbox"/> Randomly between hours of _____ to _____.</p> <p>ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____</p> <p>iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____</p> <p>iv. Does the proposed action include any shared use parking? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____</p> <p>vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate annual electricity demand during operation of the proposed action: _____</p> <p>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____</p> <p>iii. Will the proposed action require a new, or an upgrade to, an existing substation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>l. Hours of operation. Answer all items which apply.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ max 7:00 am to 7:00 pm • Saturday: _____ max 7:00 am to 7:00 pm • Sunday: _____ NA • Holidays: _____ NA </td> <td style="width: 50%; vertical-align: top;"> <p>ii. During Operations: A technician will visit the site approximately once or twice per year for maintenance inspections.</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 24 hours • Saturday: _____ 24 hours • Sunday: _____ 24 hours • Holidays: _____ 24 hours </td> </tr> </table>		<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ max 7:00 am to 7:00 pm • Saturday: _____ max 7:00 am to 7:00 pm • Sunday: _____ NA • Holidays: _____ NA 	<p>ii. During Operations: A technician will visit the site approximately once or twice per year for maintenance inspections.</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 24 hours • Saturday: _____ 24 hours • Sunday: _____ 24 hours • Holidays: _____ 24 hours
<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ max 7:00 am to 7:00 pm • Saturday: _____ max 7:00 am to 7:00 pm • Sunday: _____ NA • Holidays: _____ NA 	<p>ii. During Operations: A technician will visit the site approximately once or twice per year for maintenance inspections.</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 24 hours • Saturday: _____ 24 hours • Sunday: _____ 24 hours • Holidays: _____ 24 hours 		

<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>Temporary noise that exceeds local ambient noise levels may occur during construction of the facility, which will be limited to 7 am to 7 pm Mon-Fri and 7 am to 7 pm on Sat in accordance with Town Code Section 105-3. During operation, the noise emitted from the inverter station is <67 dB.</p> <p>ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: The proposed action will require removal of trees and foliage in the project area, but will retain surrounding natural growth to the extent practicable, which will act as a noise barrier/screen.</p>	
<p>n.. Will the proposed action have outdoor lighting? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p> <p>_____</p> <p>_____</p> <p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p> <p>_____</p>	
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> <p>_____</p> <p>_____</p>	
<p>p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally describe proposed storage facilities: _____</p> <p>_____</p>	
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>ii. Will the proposed action use Integrated Pest Management Practices? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ tons per _____ (unit of time) • Operation : _____ tons per _____ (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: _____ • Operation: _____ <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: _____ • Operation: _____ 	

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☒ No
 If Yes:
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____
 ii. Anticipated rate of disposal/processing:
 • _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
 • _____ Tons/hour, if combustion or thermal treatment
 iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☒ No
 If Yes:
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

 ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

 iii. Specify amount to be handled or generated _____ tons/month
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No
 If Yes: provide name and location of facility: _____

 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.
 i. Check all uses that occur on, adjoining and near the project site. [Refer to Figure 4.](#)
☐ Urban ☐ Industrial ☒ Commercial ☒ Residential (suburban) ☒ Rural (non-farm)
☒ Forest ☒ Agriculture ☐ Aquatic ☒ Other (specify): public services; recreation
 ii. If mix of uses, generally describe:
Auto sales and service, convenience store, deli, gas station, bank, sports dome facility, school, residential, agricultural

b. Land uses and covertypes on the project site. ([estimates for 87.8 acre parcel](#))

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.36	0.99	+0.63
• Forested	64.94	51.11	-13.83
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	7.7	20.9*	+13.2
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)	11.8	11.8	0
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: <u>lawn/landscaped areas</u>	3.0	3.0	0

* Includes area under the solar panels, which does not constitute impervious surface per NYSDEC.

Page 10 of 13

v. Is the project site subject to an institutional control limiting property uses? <input type="checkbox"/> Yes <input type="checkbox"/> No <ul style="list-style-type: none"> If yes, DEC site ID number: _____ Describe the type of institutional control (e.g., deed restriction or easement): _____ Describe any use limitations: _____ Describe any engineering controls: _____ Will the project affect the institutional or engineering controls in place? <input type="checkbox"/> Yes <input type="checkbox"/> No Explain: _____ 																	
E.2. Natural Resources On or Near Project Site Refer to Figure 5 and Endnote 2.																	
a. What is the average depth to bedrock on the project site? _____ 0 to >6 feet																	
b. Are there bedrock outcroppings on the project site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ 1 %																	
c. Predominant soil type(s) present on project site: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Mardin-Nassau complex (MgB)</td> <td style="width: 40%; text-align: right;">45 %</td> </tr> <tr> <td>Bath-Nassau complex (BnC)</td> <td style="text-align: right;">36 %</td> </tr> <tr> <td>Canandaigua silt loam (Cd)</td> <td style="text-align: right;">10 %</td> </tr> </table>		Mardin-Nassau complex (MgB)	45 %	Bath-Nassau complex (BnC)	36 %	Canandaigua silt loam (Cd)	10 %										
Mardin-Nassau complex (MgB)	45 %																
Bath-Nassau complex (BnC)	36 %																
Canandaigua silt loam (Cd)	10 %																
d. What is the average depth to the water table on the project site? Average: _____ 1 to >6 feet																	
e. Drainage status of project site soils: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"><input checked="" type="checkbox"/> Well Drained:</td> <td style="width: 60%; text-align: right;">90 % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> Moderately Well Drained:</td> <td style="text-align: right;">3 % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> Poorly Drained</td> <td style="text-align: right;">13 % of site</td> </tr> </table>		<input checked="" type="checkbox"/> Well Drained:	90 % of site	<input checked="" type="checkbox"/> Moderately Well Drained:	3 % of site	<input checked="" type="checkbox"/> Poorly Drained	13 % of site										
<input checked="" type="checkbox"/> Well Drained:	90 % of site																
<input checked="" type="checkbox"/> Moderately Well Drained:	3 % of site																
<input checked="" type="checkbox"/> Poorly Drained	13 % of site																
f. Approximate proportion of proposed action site with slopes: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"><input checked="" type="checkbox"/> 0-10%:</td> <td style="width: 60%; text-align: right;">20 % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> 10-15%:</td> <td style="text-align: right;">60 % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> 15% or greater:</td> <td style="text-align: right;">20 % of site</td> </tr> </table>		<input checked="" type="checkbox"/> 0-10%:	20 % of site	<input checked="" type="checkbox"/> 10-15%:	60 % of site	<input checked="" type="checkbox"/> 15% or greater:	20 % of site										
<input checked="" type="checkbox"/> 0-10%:	20 % of site																
<input checked="" type="checkbox"/> 10-15%:	60 % of site																
<input checked="" type="checkbox"/> 15% or greater:	20 % of site																
g. Are there any unique geologic features on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, describe: _____																	
h. Surface water features. <ul style="list-style-type: none"> i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Refer to Figure 3 and Endnote 3. The proposed project does not result in disturbance to any wetlands or streams. ii. Do any wetlands or other waterbodies adjoin the project site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i. <ul style="list-style-type: none"> iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No iv. For each identified regulated wetland and waterbody on the project site, provide the following information: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">• Streams:</td> <td style="width: 40%;">Name <u>862-392</u></td> <td style="width: 40%;">Classification <u>C</u></td> <td style="width: 10%;"></td> </tr> <tr> <td>• Lakes or Ponds:</td> <td>Name <u>None</u></td> <td>Classification _____</td> <td></td> </tr> <tr> <td>• Wetlands:</td> <td>Name <u>Federal Waters, Federal Waters, Federal Waters,....</u></td> <td>Approximate Size <u>NYS Wetland (in acres) 17.5</u></td> <td></td> </tr> <tr> <td>• Wetland No. (if regulated by DEC)</td> <td colspan="3"><u>PO-17</u></td> </tr> </table> 		• Streams:	Name <u>862-392</u>	Classification <u>C</u>		• Lakes or Ponds:	Name <u>None</u>	Classification _____		• Wetlands:	Name <u>Federal Waters, Federal Waters, Federal Waters,....</u>	Approximate Size <u>NYS Wetland (in acres) 17.5</u>		• Wetland No. (if regulated by DEC)	<u>PO-17</u>		
• Streams:	Name <u>862-392</u>	Classification <u>C</u>															
• Lakes or Ponds:	Name <u>None</u>	Classification _____															
• Wetlands:	Name <u>Federal Waters, Federal Waters, Federal Waters,....</u>	Approximate Size <u>NYS Wetland (in acres) 17.5</u>															
• Wetland No. (if regulated by DEC)	<u>PO-17</u>																
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, name of impaired water body/bodies and basis for listing as impaired: _____																	
i. Is the project site in a designated Floodway? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																	
j. Is the project site in the 100 year Floodplain? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (FEMA FIRM Panel No. 36111C0790E)																	
k. Is the project site in the 500 year Floodplain? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																	
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: <ul style="list-style-type: none"> i. Name of aquifer: _____ 																	

<p>m. Identify the predominant wildlife species that occupy or use the project site: _____ Common Ulster County species _____ Refer to Endnote 4. _____</p>	
<p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: <i>i.</i> Describe the habitat/community (composition, function, and basis for designation): _____ _____ <i>ii.</i> Source(s) of description or evaluation: _____ <i>iii.</i> Extent of community/habitat: • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres</p>	
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Refer to Figure 6 and Endnote 4.</p>	
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, give a brief description of how the proposed action may affect that use: _____ _____</p>	
<p>E.3. Designated Public Resources On or Near Project Site</p>	
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, provide county plus district name/number: _____</p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>i.</i> If Yes: acreage(s) on project site? 52 acres <i>ii.</i> Source(s) of soil rating(s): Natural Resource Conservation Service and GIS data</p>	
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: <i>i.</i> Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature <i>ii.</i> Provide brief description of landmark, including values behind designation and approximate size/extent: _____ _____ _____</p>	
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: <i>i.</i> CEA name: _____ <i>ii.</i> Basis for designation: _____ <i>iii.</i> Designating agency and date: _____</p>	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? Refer to Figure 7 and Endnote 5.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes: i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District ii. Name: _____ iii. Brief description of attributes on which listing is based: _____	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? Refer to Figure 7 and Endnote 5.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
g. Have additional archaeological or historic site(s) or resources been identified on the project site? If Yes: i. Describe possible resource(s): _____ ii. Basis for identification: _____	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? Refer to Figure 8.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes: i. Identify resource: Refer to Figure 8. ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): National/State Historic Register sites; Scenic Trails, SASS; State Parks; State Recreation iii. Distance between project and resource: _____ 0.6+/- miles. SASS	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes: i. Identify the name of the river and its designation: _____ ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	

F. Additional Information

Attach any additional information which may be needed to clarify your project.

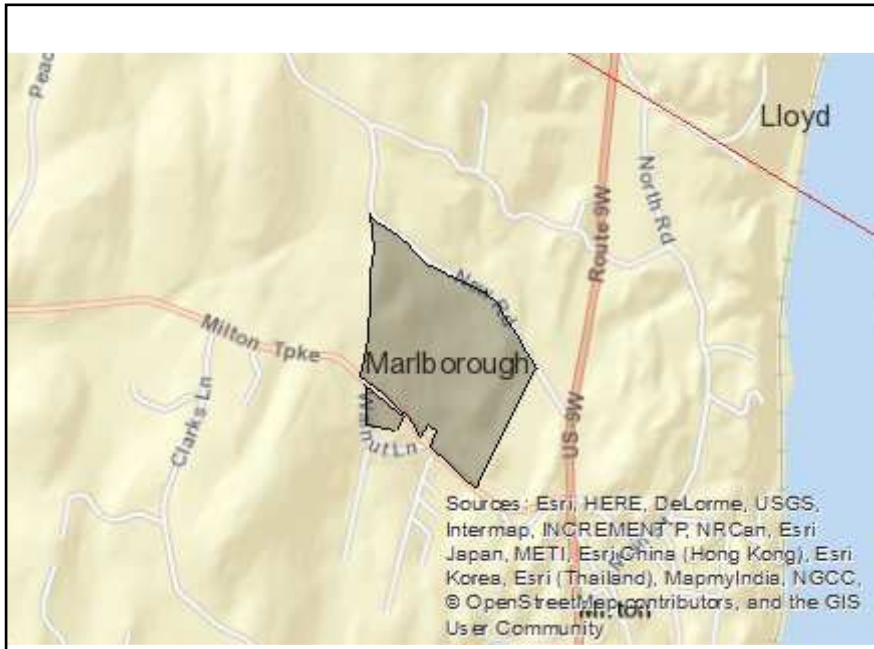
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Marlborough Solar, LLC Date October 18, 2018

Signature  Title Project Engineer
 Nicholas Vamvas for The Chazen Companies, Agent for the Applicant



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	862-392
E.2.h.iv [Surface Water Features - Stream Classification]	C
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters, NYS Wetland
E.2.h.iv [Surface Water Features - Wetlands Size]	NYS Wetland (in acres):17.5
E.2.h.iv [Surface Water Features - DEC Wetlands Number]	PO-17
E.2.h.v [Impaired Water Bodies]	No

E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National Register of Historic Places]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

ENDNOTES

1. Stormwater

A Stormwater Pollution Prevention Plan (SWPPP) is currently being prepared in conformance with the New York State Stormwater Management Design Manual, dated January 2015, and New York State Standards and Specifications for Erosion and Sediment Control, dated August 2005. The NYSDEC has determined that solar panels do not constitute impervious surface for stormwater management purposes. The project results in 0.63 acre of new impervious surface.

2. Soils

The following table provides the soil characteristics for each soil type expected to be found within the project parcel, according to available Geographic Information Systems (GIS) information (Figure 4) and the USDA Natural Resources Conservation Service website (<http://efotg.sc.egov.usda.gov/treemenuFS.aspx>).

SOIL SYMBOL	SOIL TYPE	SLOPES	DRAINAGE	DEPTH TO WATER TABLE (INCHES)	DEPTH TO BEDROCK (INCHES)
BnC	Bath-Nassau complex, 8 to 25% slopes				
	Bath (50%)	8 to 25%	well	24 to 37	40 to 80
	Nassau (30%)	8 to 25%	somewhat excessively	>80	10 to 20
MgB	Mardin-Nassau complex, 3 to 8% slopes				
	Mardin (55%)	3 to 8%	moderately well	13 to 24	>72
	Nassau (25%)	3 to 8%	somewhat excessively	>80	10 to 20
Cd	Canandaigua silt loam, till substratum	0 to 1%	very poorly	0	>80
NBF	Nassau-Bath-rock outcrop complex, very steep				
	Nassau (35%)	25 to 65%	somewhat excessively	>80	10 to 20 to lithic BR
	Bath (25%)	25 to 45%	well	24 to 37	26 to 38 to fragipan
	Rock outcrop (20%)	25 to 45%	NA	NA	0
VoB	Volusia gravelly silt loam, 3 to 8% slopes	3 to 8%	somewhat poorly	6 to 18	10 to 22 to fragipan
At	Atherton silt loam	0 to 2%	poorly	0	>80

The area of the proposed solar farm contains primarily the Bath-Nassau complex (BnC) and the Mardin-Nassau complex (MgB) soil types.

3. Wetlands and Surface Waters

According to the NYSDEC EAF Mapper, available GIS mapping (Figure 5), and the NYSDEC Environmental Resource Map (Figure 6), a NYSDEC regulated wetland, identified as PO-17, and its associated 100-foot adjacent area are located in the eastern portion of the parcel. A Class C stream (862-392) is located in the northeastern corner of the parcel. Figure 5 shows several National Wetland Inventory (NWI) wetlands within the project parcel. Wetlands in the area of the proposed

solar farm were delineated by a Chazen biologist on July 12, 2017 (refer to Existing Conditions plan). The project has been designed to avoid impacts to streams, wetlands, and associated buffers.

4. *Endangered, Threatened, and/or Rare Species and Significant Natural Communities*

The NYSDEC Environmental Resource Map (Figure 6) indicates that there are no known occurrences of endangered, threatened, or rare species or significant natural communities in the vicinity of the project site; therefore, an inquiry to NYSDEC Natural Heritage Program is not required. The US Fish & Wildlife Service (USFWS) IPaC Resource List indicates the potential for the Indiana Bat (endangered), the Northern Long-Eared Bat (NLEB) (threatened), and the Bog Turtle (threatened) in the vicinity of the site, and states that there are no critical habitats at this location.

Based on an ecological assessment of the area of the proposed solar farm on July 12, 2017, by a Chazen biologist, the site contains trees over 3-inch diameter at breast height (dbh) with features which provide suitable summer roosts for Indiana Bats and Northern Long-Eared Bats. The closest hibernaculum is 13 miles to the west in Rosendale. Timing of tree removal during bat hibernation between November 1 and March 31 will be adequate mitigation for the bat species.

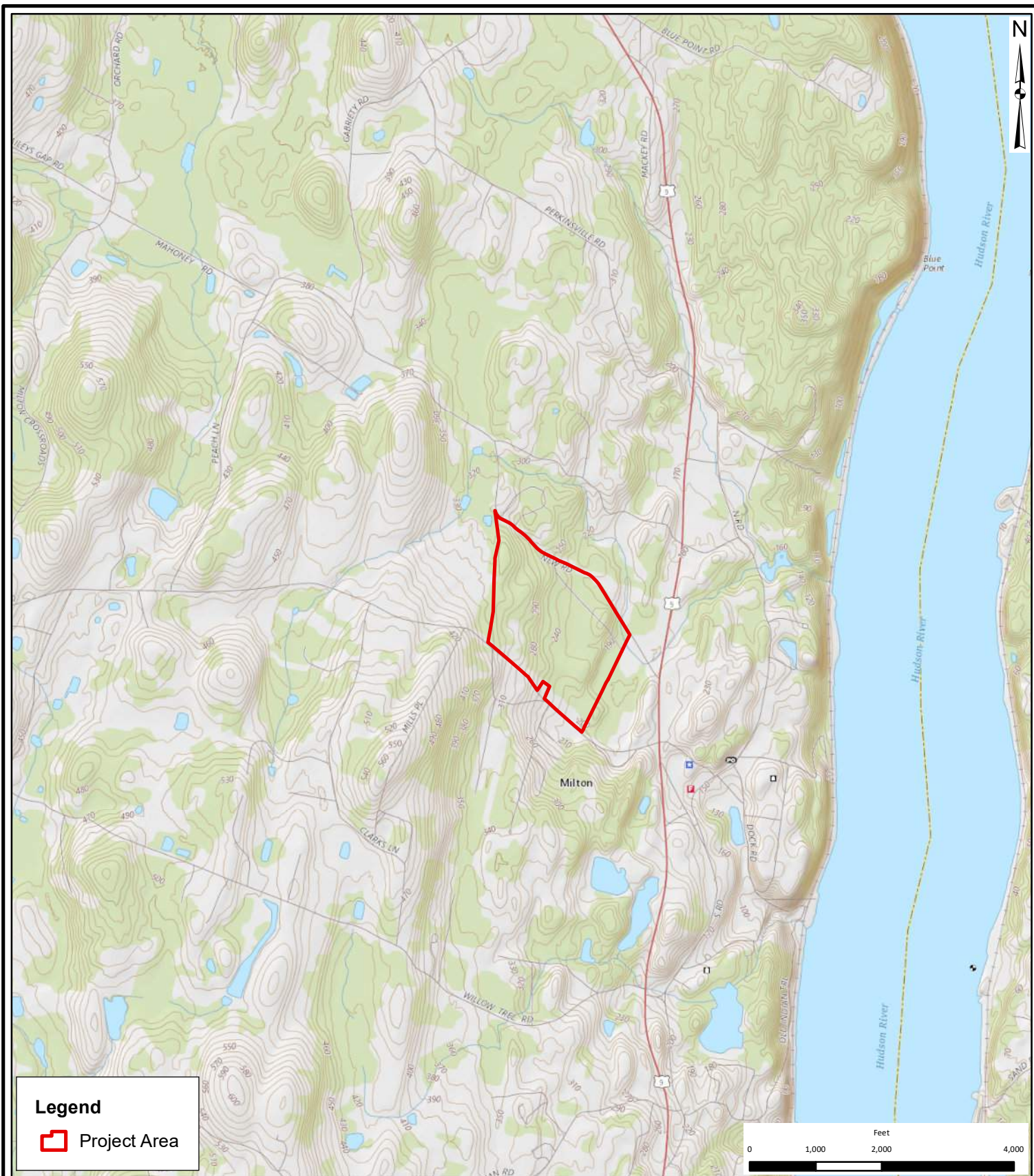
The closest known Bog Turtle site is a historic record located approximately 6 miles from the site. According to the ecological assessment, the onsite wetlands do not provide habitat suitable for Bog Turtle.

Consultation with NYSDEC is not required since the NYSDEC has no occurrence records of endangered or threatened species for the site and the nearest hibernaculum for the bat species is 13 miles from the site. Consultation with USFWS is not required since the project does not involve any Federal permits.

5. *Cultural/Historic Resources*

According to the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) mapping (Figure 7), there are no National or State Historic Register sites on or adjacent to the project site. The project area is not located within a known archeologically sensitive area.

FIGURES



THE
Chazen
COMPANIES

ENGINEERS
LAND SURVEYORS
PLANNERS
ENVIRONMENTAL & SAFETY PROFESSIONALS
LANDSCAPE ARCHITECTS

Dutchess County Office:
21 Fox Street, Poughkeepsie, NY 12601
Phone: (845) 454-3980

Capital District Office:
547 River Street, Troy, NY 12180
Phone: (518) 273-0055

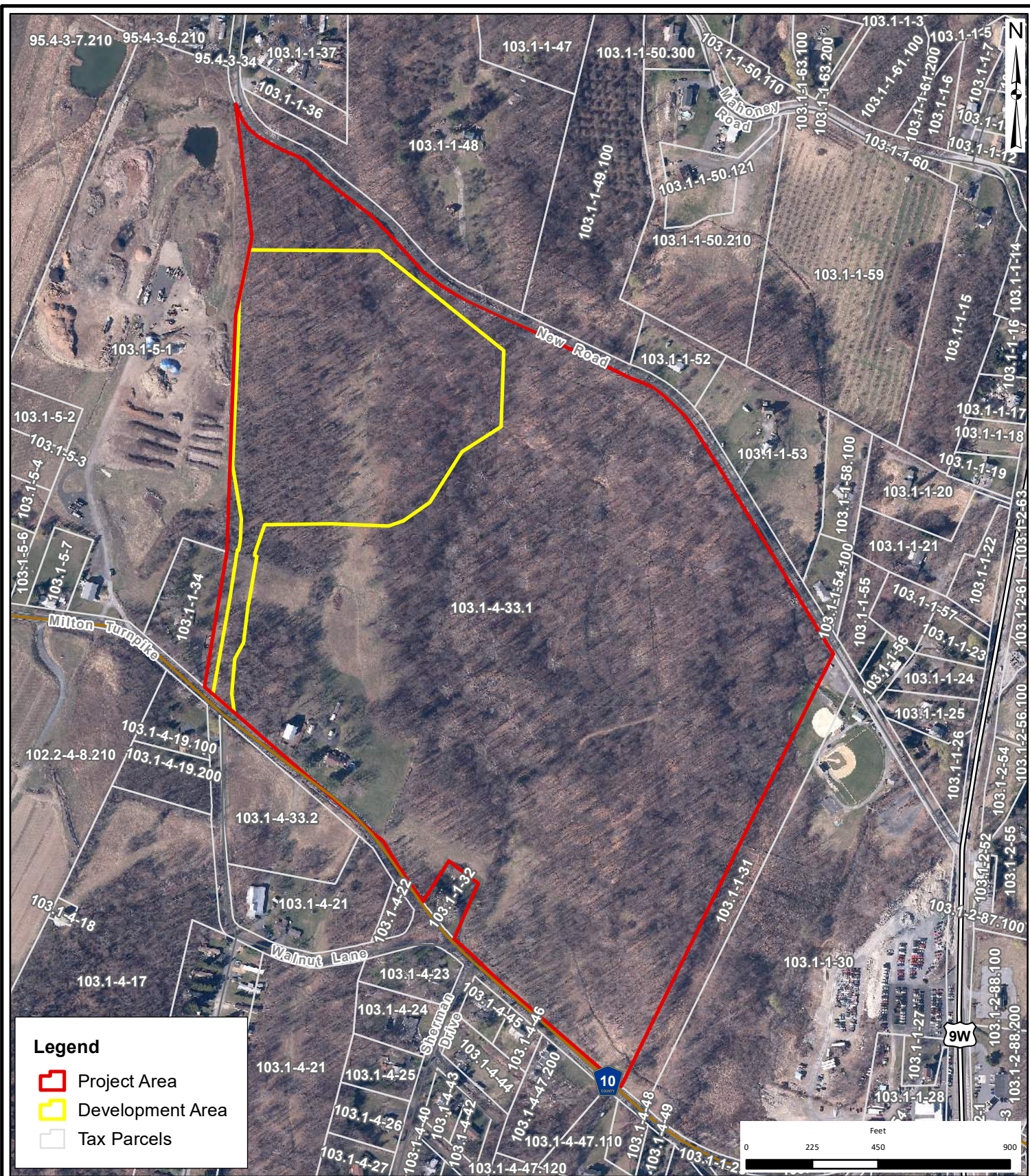
North Country Office:
375 Bay Road, Queensbury, NY 12804
Phone: (518) 812-0513

Marlborough Solar, LLC - Proposed Solar Farm

USGS Location Map

Milton Turnpike, Town of Marlborough - Ulster County, NY

Drawn:	RLB
Date:	06/05/2018
Scale:	1 in = 2,000 feet
Project:	51711.03
Figure:	1



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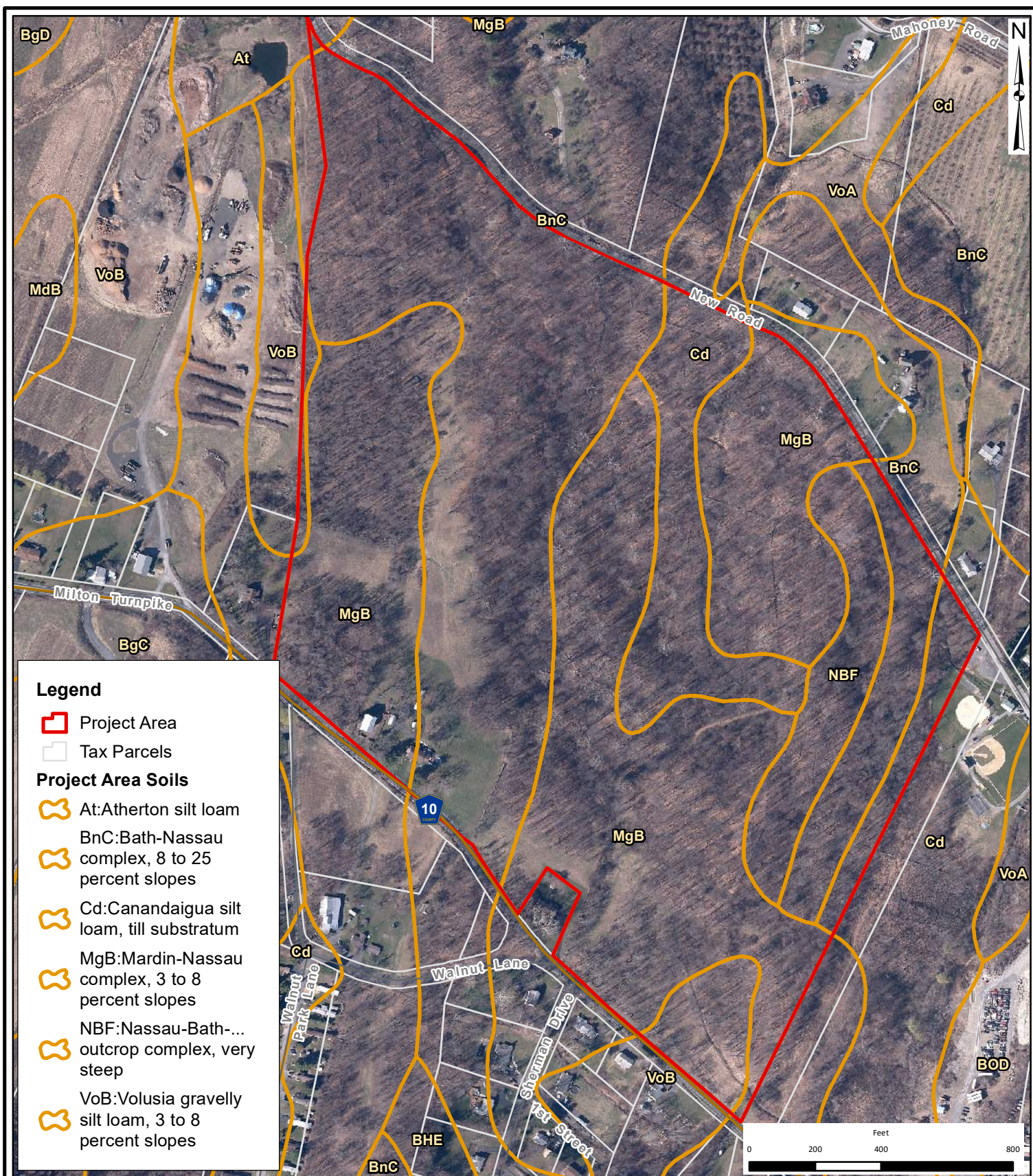
Marlborough Solar, LLC - Proposed Solar Farm

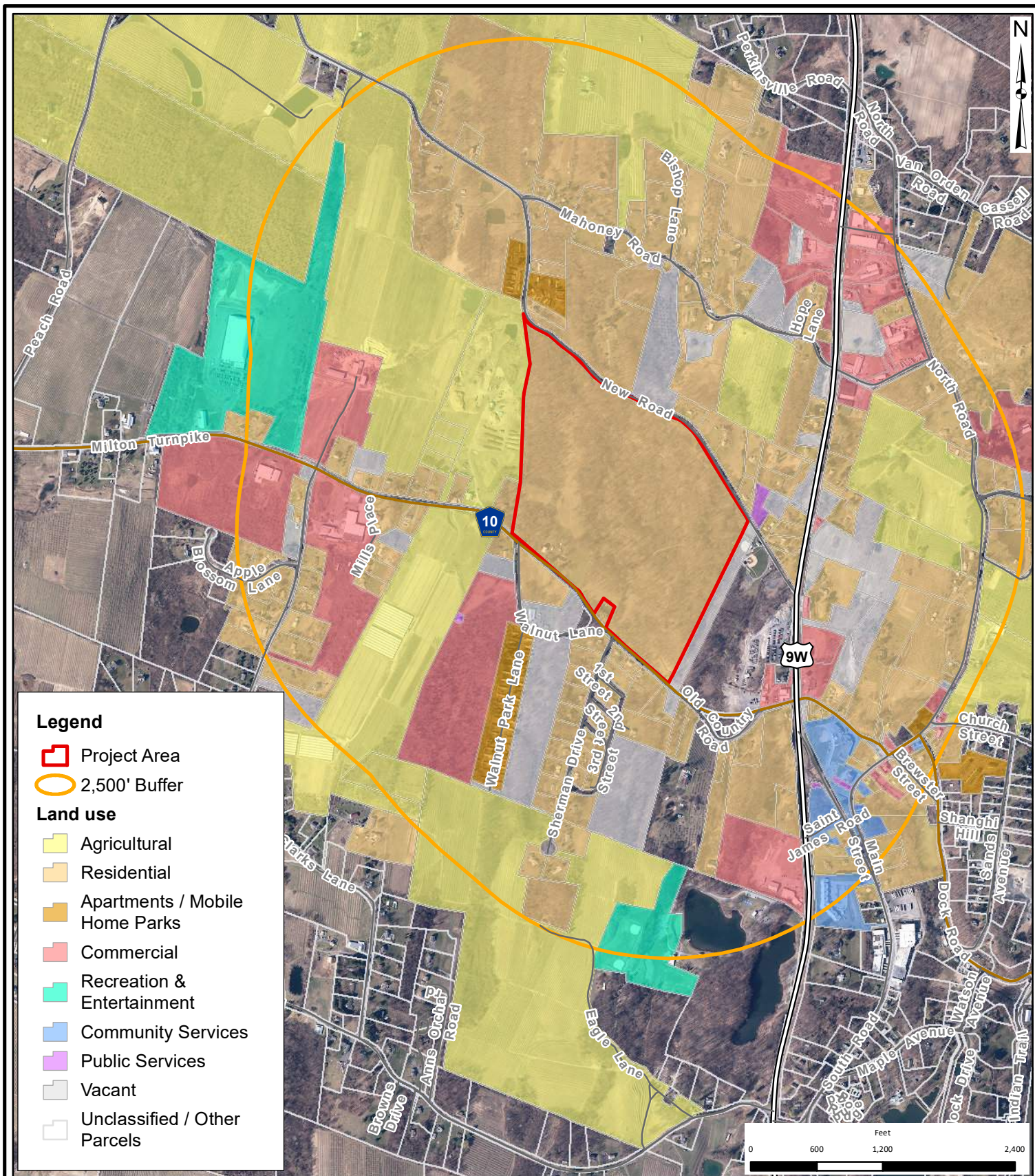
Orthophoto Tax Map

Milton Turnpike, Town of Marlborough - Ulster County, NY

Drawn:	RLB
Date:	06/05/2018
Scale:	1 in = 450 feet
Project:	51711.03
Figure:	2







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Marlborough Solar, LLC - Proposed Solar Farm

Land Use Map

Milton Turnpike, Town of Marlborough - Ulster County, NY

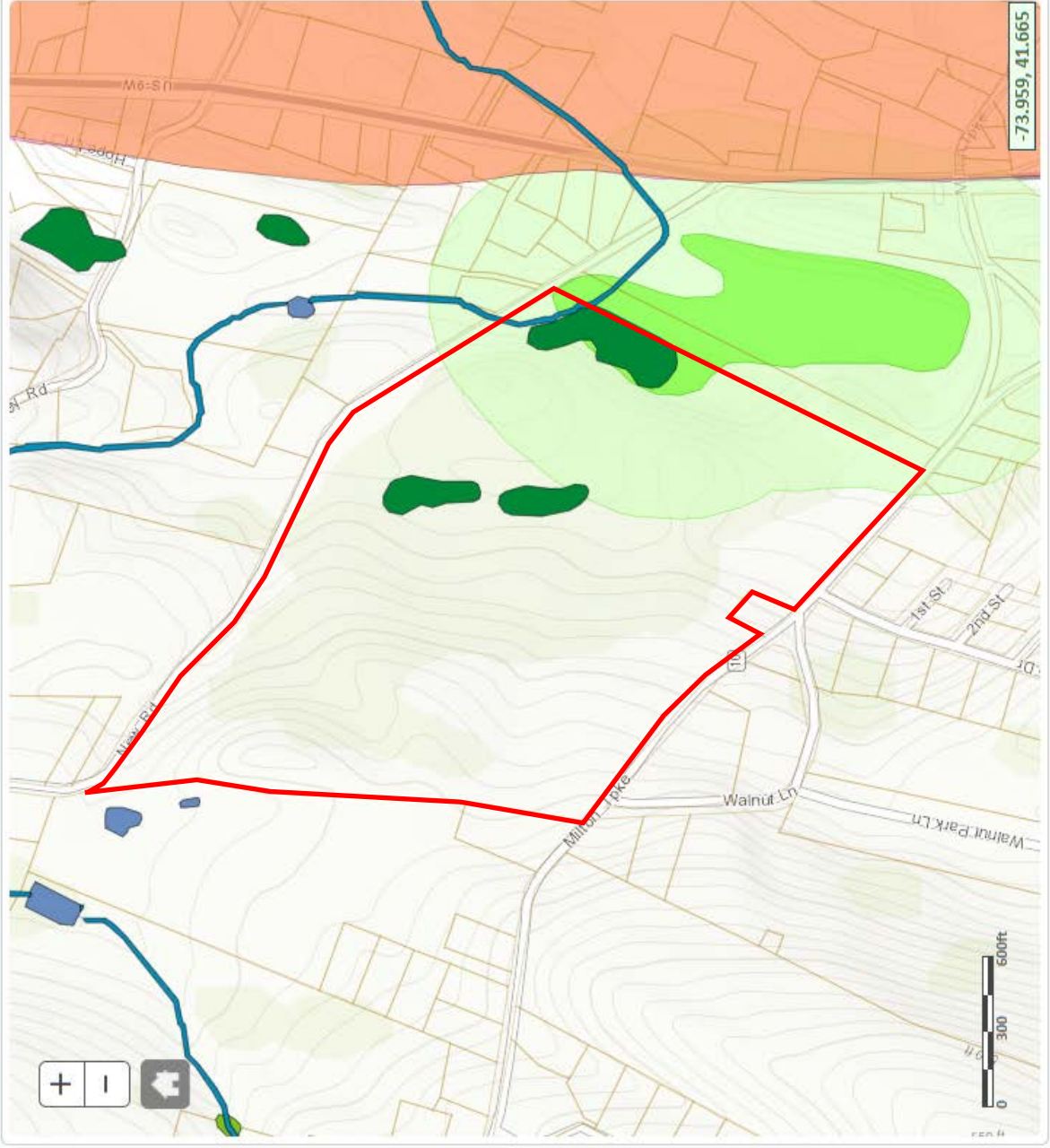
Drawn:	RLB
Date:	06/05/2018
Scale:	1 in = 1,200 feet
Project:	51711.03
Figure:	5

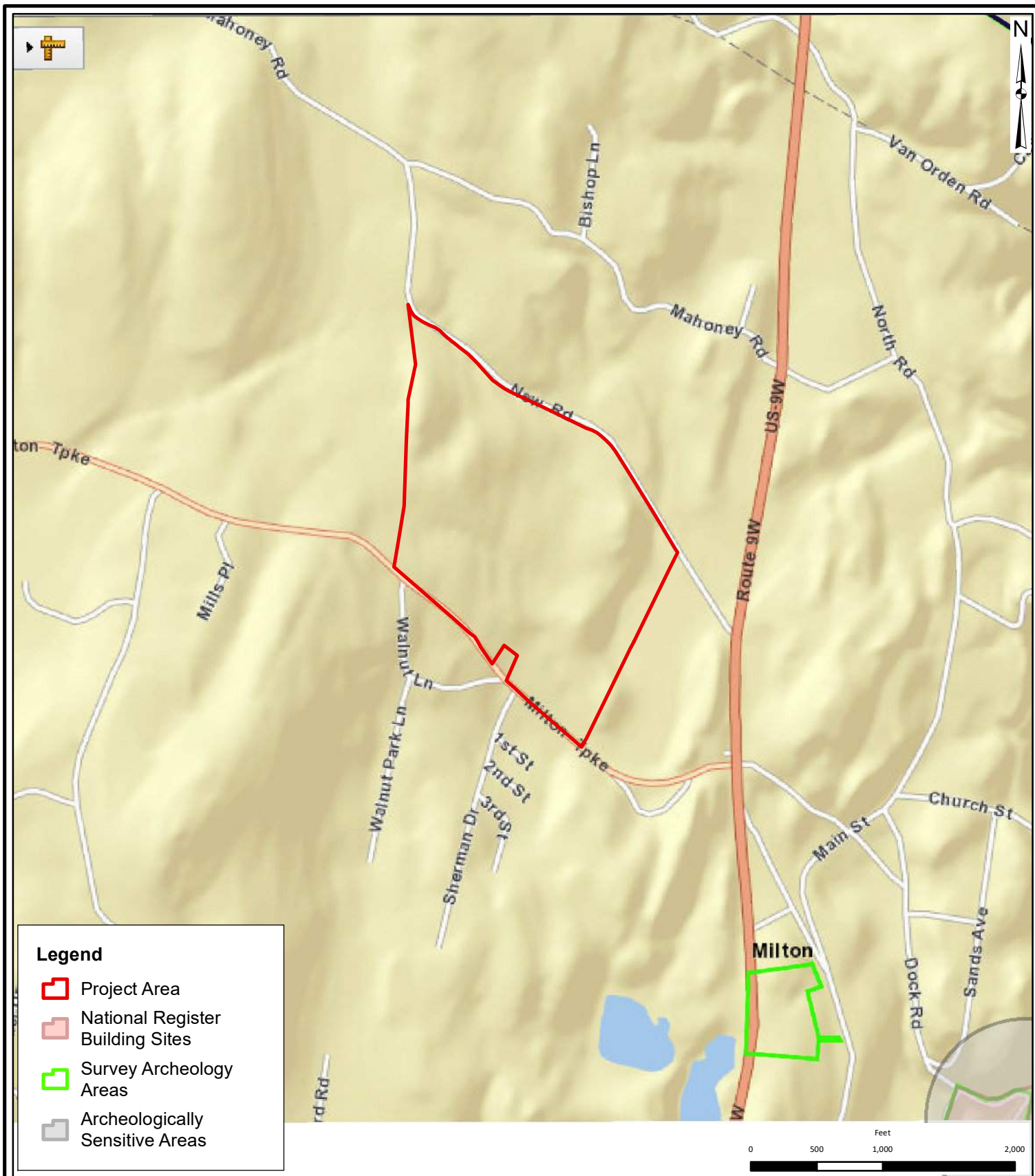
Figure 6
NYSDEC Environmental Resource Map

Environmental Resource Mapper

Base Map: Topographical

Search	
Tools	
Layers and Legend	
<input checked="" type="checkbox"/> All Layers	
<input checked="" type="checkbox"/> Unique Geological Features	
<input checked="" type="checkbox"/> Waterbody Classifications for Rivers/Streams	
<input checked="" type="checkbox"/> Waterbody Classifications for Lakes	
<input checked="" type="checkbox"/> State Regulated Freshwater Wetlands	
<input checked="" type="checkbox"/> State Regulated Wetland Checkzone	
<input checked="" type="checkbox"/> Significant Natural Communities	
<input checked="" type="checkbox"/> Natural Communities Near This Location	
<input checked="" type="checkbox"/> Rare Plants and Rare Animals	
Other Wetland Layers	
Reference Layers	
Tell Me More...	
Need A Permit?	
Contacts	





ATTACHMENT A

USFWS IPaC Resource List

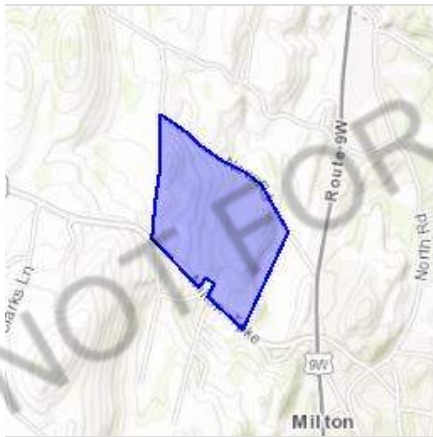
IPaC resource list

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

Ulster 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](#).

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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:

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Reptiles

NAME	STATUS
Bog Turtle <i>Clemmys muhlenbergii</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6962	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

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.)

Bald Eagle *Haliaeetus leucocephalus*

Breeds Dec 1 to Aug 31

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>

Canada Warbler *Cardellina canadensis*

Breeds May 20 to Aug 10

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

Eastern Whip-poor-will *Antrostomus vociferus*

Breeds May 1 to Aug 20

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

Prairie Warbler *Dendroica discolor*

Breeds May 1 to Jul 31

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

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.

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.

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 [E-bird Explore Data Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

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.

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

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

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 FORESTED/SHRUB WETLAND

[PFO1C](#)

[PFO1E](#)

RIVERINE

[R4SBC](#)

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