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## MEMORANDUM

**To: Town of Cortlandt Planning Board**

**From: Kevin Jamieson, PWS**

**Date: December 22, 2020**

**Re: Biodiversity Assessment Technical Memorandum  
Lexington Avenue Solar Facility – Cortlandt CSG, LLC  
Town of Cortlandt, NY  
MC Project No. 20001755B**



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This Biodiversity Assessment Technical Memorandum is submitted on behalf of Cortlandt CSG, LLC (applicant). It summarizes the known regulatory and ecological conditions of the proposed Lexington Avenue Solar Project (Project) site, and recommends a series of protective conservation measures to be implemented by the applicant, and monitored and enforced by the Town of Cortlandt, to conserve habitat on the site in alignment with Chapter 179 of the Town Code and the Town of Cortlandt's Planning Board guidelines for Wildlife and Plant Biodiversity Assessments adopted May 7, 2002 (Biodiversity Assessment Guidelines). Maser Consulting has reviewed the memoranda prepared by the Town's consultant, Weston & Sampson.

### **EXECUTIVE SUMMARY**

Maser Consulting acknowledges that the proposed Project site contains upland forest that provides general wildlife habitat. We agree with the Town's consultant in this regard, and do not dispute the presence of wildlife habitats on the site.

At the same time, the following factors also contribute to the site's existing conditions:

- The secondary-succession forest inventoried on site is not rare or unique to the region;
- Consultation with the New York State Department of Environmental Conservation Natural Heritage Program confirms that there are no documented occurrences of threatened or endangered species on or within 1.5 miles of the project site based on a review of State databases;
- The Project site is not located within or near any of the specific named "Target Areas" listed in the Town's Biodiversity Assessment Guidelines. The project is also not located in the vicinity of lakes, ponds, or open space, and has been designed to avoid encroachments into nearby stream corridors and wetlands; and



- The proposed solar facility onsite would not result in a significant loss of tree cover for the immediate area

Taking all this into account, Maser Consulting has identified a number of conservation measures to be incorporated into the Project to mitigate disturbances to upland forest, and to maintain biodiversity for the remaining habitats on the site. These measures include, but are not limited to, the protection of wetlands and associated habitats through Conservation Easements recorded against the property, the expansion of wetland buffers along headwater wetlands and streams in the northwestern portion of the property, and the planting of approximately 132 native trees in combination with contribution to the Town's Environmental Fund for additional tree plantings offsite. These measures are consistent with the purpose and intent of the Town's Biodiversity Assessment Guidelines to maintain and preserve habitats for wildlife and vegetation.

We believe it is also relevant that the proposed solar farm represents a minimally invasive development of the site, as compared to a traditional commercial development in accordance with the site's Designed Commercial zoning.

Maser Consulting recommends, therefore, that the conservation measures identified herein, be incorporated as conditions of the current pending site plan approval for the Project. Maser Consulting is aware that the Town's consultant recommended a full field-based biodiversity survey. Maser Consulting recommends the implementation and enforcement of the conservation measures as an alternative to a biodiversity assessment, as the conservation measures will serve to maintain and protect remaining biodiversity on the Site based on known site conditions and provide mitigation for proposed site disturbances. This approach achieves the intent of the Biodiversity Assessment Guidelines which is to maintain biodiversity as economic growth proceeds. We have discussed these issues with the Town's consultant, and hope that the Board and your consultant agrees with our recommendations.

As background, Maser Consulting is a national, multi-disciplinary, engineering firm with 35 years of experience and 1,000 professionals, including licensed engineers, planners, surveyors, landscape architects, and environmental scientists. This Memorandum was prepared by Kevin Jamieson, who has 19 years of professional experience within Maser Consulting's Department of Ecological Services. Kevin Jamieson holds a Bachelor of Science (B.S) in Natural Resource Management from Rutgers University and a Master of Science (M.S.) in Ecology and Evolutionary Biology from Montclair State University (qualifications attached).

## **PROJECT DESCRIPTION**

The proposed project involves the construction of a 2.35 MWdc/2.1 MWac solar facility over approximately 11 acres of land, and within a larger approximately 34-acre parcel. The facility will include driveway from Lexington Avenue, an internal gravel driveway, solar panel array and appurtenant features. The facility will be fenced and the 11-acre limit of disturbance will extend slightly beyond the fence.



The proposed solar facility will provide green energy solutions to electric power generation and will advance New York State's initiatives under the Climate Leadership and Community Protection Act (CLCPA). Under CLCPA, the state calls for 70 percent of the State's electricity to come from renewable sources by 2030 and 6,000 megawatts of solar by 2025. The proposed solar facility was designed to avoid or minimize impacts to sensitive resources such as steep slopes, streams, wetlands, and wetland buffers; however, the project will result in the conversion of approximately 11 acres of upland forest to meadow with native pollinator species containing the proposed solar facility.

It should be noted that the forest to be converted is not unique or rare within the local region, is not documented habitat for threatened or endangered species, and is not identified as a significant natural community by the NYSDEC. Furthermore, the proposed solar facility is expected to have less of an environmental impact than some alternative development types that may occur on the property. For example, commercial development for which the property is zoned, would likely result in a similar amount of disturbance to the existing forest habitat; however, there would likely be more significant direct and secondary impacts associated with paved surfaces, buildings, stormwater runoff, and traffic with a commercial use as compared to the current proposed use.

The Town of Cortlandt's Planning Board guidelines for Wildlife and Plant Biodiversity Assessments adopted May 7, 2002 (Biodiversity Assessment Guidelines) require surveys within certain target areas such as along rivers and stream corridors, in the vicinity of lakes, ponds, and wetlands, adjacent to obvious corridors of open space or preserves. The project has been designed to avoid encroachments into nearby stream corridors and wetlands. A minor encroachment into the Town buffer associated with a small wetland pocket in a disturbed utility line corridor will be required for the access road, otherwise there are no encroachments proposed within wetland buffers. In fact, where able, the applicant proposes additional buffer area adjacent to wetlands and streams. The project site is not within the specific areas of open space or preserves identified in the Guidelines.

## **BACKGROUND INFORMATION**

The following sources of information were reviewed to determine if documented occurrences for threatened and endangered species occur on or in the immediate vicinity of the Site:

- **NYSDEC Environmental Resource Mapper**

The NYSDEC Environmental Resource Mapper contains a data layer for Rare Plants and Rare Animals which depicts generalized locations of animals and plants that are rare in New York State, including but not limited to those listed as threatened and endangered. It also contains a data layer or Significant Natural Communities which depicts the general locations of rare or high-quality wetlands, forests, grasslands, ponds, streams, and other types of habitats, ecosystems, and ecological areas.



The NYSDEC Environmental Resource Mapper for this Site and the surrounding area (Figure 1) did not identify occurrences of rare plants or animals or significant natural communities on or adjacent to the Site. The nearest occurrences of these resources are at least 1.5 miles to the south and east.

- **SEQRA Environmental Assessment Form**

The New York State Environmental Quality Review Act (SEQRA) Long Environmental Assessment Form (EAF) prepared for the Site did not identify occurrences of threatened or endangered species on the Site. A copy of the EAF is attached.

- **Natural Heritage Program**

A request was made to the New York State Natural Heritage Program (NHP) for records of threatened or endangered species that may occur on or in the immediate vicinity of the Site. The NHP response dated December 2, 2020 indicated there are no records of rare or state-listed plants, or significant natural communities, at the Site or in the immediate vicinity. A copy of the NHP response is attached.

- **USFWS iPaC**

An unofficial species list derived from a preliminary review of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (iPaC) database indicated the following species are potentially affected at this location: Indiana bat (*Myotis sodalis*) and Bog turtle (*Glyptemys muhlenbergii*). Neither the NYSDEC Environmental Resource Mapper, nor the EAF, nor the NHP, all of which are based on actual locational records of species and habitat, identify the presence of these species on or adjacent to the Site.

- **Wetland Delineation Summary memorandum prepared by Weston & Sampson dated October 21, 2020.**

This memorandum summarized the results of the watercourse verification performed by the NYCDEP and the wetland delineation review by the wetland consultant on behalf of the Town. In addition to the aforementioned wetland delineation summary information, Weston & Sampson recommend a biodiversity/ecological assessment for threatened and endangered species due to the likely presence of various aviary, amphibians, and reptile species within the project area.

- **Tree Inventory and Assessment Summary memorandum prepared by Weston & Sampson dated October 14, 2020.**

This memorandum summarized the results of tree inventory and assessment performed for the Site by characterizing the forest types, species composition, and forest health. Weston & Sampson noted that several aviary, amphibian, and reptile species were observed within the project area and included wood frogs, leopard frog, eastern box turtle, and owls. Weston & Sampson also noted



that several shagbark hickories are located within the wetland areas, and although not assessed, are likely to be bat habitat. It was recommended that a biodiversity/ecological assessment for threatened and endangered species be performed based upon the observed animal species and potential habitats within the project area. Some of the species identified by Weston & Sampson may be non-threatened or endangered “focal” species per the Biodiversity Assessment Guidelines and are addressed herein.

## **SITE DESCRIPTION**

The Site primarily contains secondary-successional forest consisting of young to medium-age trees. A gas pipeline easement that was recently colonized by herbaceous cover traverses the site in a general east to west direction. General habitat types on the Site include upland, deciduous-dominant forest, palustrine forested wetlands with scrub-shrub, emergent, and riverine (stream) components, and the easement associated with the gas pipeline.

Freshwater wetlands were delineated on the Site by Maser Consulting in April 2020 and the limits have since been verified by consultants for the Town of Cortlandt on August 31, 2020. On October 22, 2020, the New York State Department of Environmental Conservation field verified the limits of State Wetlands and confirmed that wetland delineation area WB represents the limit of State Wetlands, specifically State Wetland A-35. On August 26, 2020, the New York City Department of Environmental Protection field verified the limits of watercourses on the Site.

The Site is bordered to the north and west by residential development, to the south by Route 35 (Crompond Road), and to the east by Lexington Avenue. The adjacent development consisting of residential neighborhoods and transportation corridors have resulted in a fragmented landscape and have fragmented the Site and some of the surrounding lands from larger, more contiguous tracts of undeveloped land in the vicinity.

The Biodiversity Assessment Guidelines emphasizes how habitat fragmentation disrupts wildlife movement. The stream corridor, associated wetlands, and wetland buffers provide a relatively contiguous corridor for wildlife within the Site and will not be disturbed by construction activities. Otherwise, because the Site itself is fragmented as described herein, it has limited value to serve as a significant wildlife corridor. Therefore, the proposed development is not expected to have significant adverse impacts on the movement of wildlife.

Based on memorandums prepared by Weston & Sampson, several wildlife species were observed during the tree inventory and assessment and included wood frogs, leopard frogs, eastern box turtle, and owls. In addition to these animals, Weston & Sampson also valued shagbark hickories (*Carya ovata*) observed in the wetland areas as likely bat habitat. Some of the species observed by Weston & Sampson may be regarded as “focal” species pursuant to the Biodiversity Assessment Guidelines. The following is a preliminary assessment of habitat for these species based on desktop information and limited site observations made during the wetland delineation:



### **Wood frogs**

This species may be associated with a potential woodland breeding pool within the upper limits of Wetland Area WB. The woodland pool within Wetland Area WB is part of New York State Wetland A-35 and, in addition to Town wetland requirements, this wetland area and hence the woodland pool will receive a regulated 100 ft. adjacent area (buffer) regulated by the NYSDEC pursuant to Article 24 of the Environmental Conservation Law. The proposed project does not encroach into this wetland or its 100 ft. buffer. Wood frog (*Lithobates sylvaticus*) is not listed as threatened or endangered in New York.

### **Leopard frogs**

There are several species of leopard frogs that occur in New York State, including Northern leopard frog, Southern leopard frog, and Atlantic Coast leopard frog. Leopard frogs occur in wetlands. No leopard frog species are listed as threatened or endangered in New York.

### **Eastern box turtle**

The eastern box turtle (*Terrapene carolina carolina*) is a habitat generalist and potentially utilizes a variety of the habitat types on the Site. Because this species is a habitat generalist, there is other suitable habitat available for this species on the property. Eastern box turtle is not listed as threatened or endangered in New York.

### **Owls**

In regard to the observed owls, there are a number of owl species in New York State, only one of which is listed as threatened or endangered. The Short-eared owl (*Asio flammeus*) is a State-endangered species in New York and primarily occupies grassland-type habitats which are absent on this Site. Therefore, it is highly unlikely that the observed owls are short-eared owls but rather represent an owl species that is not listed as threatened or endangered in New York.

### **Bats**

In regard to habitat for bats, Weston & Sampson indicated shagbark hickory trees in the wetlands are “likely” bat habitat but indicated these trees were not actually assessed for habitat suitability. There are a numerous bat species that reside in New York State, two of which are listed as threatened or endangered: Northern long-eared bat (*Myotis septentrionalis*) and Indiana bat (*Myotis sodalis*). The Site, as does much of New York State, occurs within the range of these species. Northern long-eared bat and Indiana bat hibernate in caves or mines during the winter and disperse to summer habitat, usually in forested areas, in the summer. These species utilize various habitat types, but in general, Indiana bat is more commonly associated with bottomland, wetland and riparian forest habitats versus Northern long-eared bat which is more commonly associated with upland forests.

There are no known caves or mines on the Site; therefore, winter habitat for these bats is not present. The shagbark hickories that were valued as likely habitat for bats primarily occur in wetland areas, as stated in the memo from Weston & Sampson. The proposed activities will not encroach in wetlands areas or within 100 ft. of wetlands; therefore, shagbark hickory trees and



other tree species in and adjacent to wetlands will not be removed for this project. Based on tree inventory data, it appears that only two shagbark hickory trees were documented within the proposed limits of disturbance, which is miniscule and when compared to the total trees inventoried.

In terms of total tree clearing, the proposed project will result in approximately 11 acres of tree removal. Based on a GIS-based review of land cover within the region, the 11 acres of tree removal represents only a 0.8% loss of approximately 1,443 acres of tree cover, including forest, within one mile of the Site and a 0.2% loss of approximately 5,093 acres of tree cover, including forest, within two miles of the Site (see Figures 2 and 3). On a local and regional scale, the removal of 11 acres of trees for this project will not result in the loss of a limited resource.

## CONSERVATION MEASURES

In lieu of performing a full biodiversity assessment, Maser Consulting has utilized existing, site-specific information and observations regarding the ecology of the Site to proactively identify the following conservation measures that can be implemented to minimize impacts to wildlife and habitat:

1. Chapter 179 of the Town Code encourages the use of conservation easements to protect wetlands, waterbodies, and watercourses. To preserve and protect habitats valued by the Town of Cortlandt, the Applicant will coordinate with the Planning Department staff to evaluate the potential to establish conservation easements or open space designation, such as the approximate eight (8) acres comprised by the wetlands and associated buffers on the western side of the project property (Figure 4), to be finalized prior to construction. The conservation easements will provide the following:
  - Within the conservation easement for Wetland WA and its buffer, approximately 1.5 acres of additional buffer will be added to the wetlands and stream that are part of this wetland. Currently, the upper limit of the stream in the northwestern portion of the property does not contain associated wetlands and therefore no buffer; however, buffer area will be added (see attached sketch) thereby protecting the headwaters of the stream. This will result in a net increase in wetland buffer on the site.
  - The conservation easement associated with Wetland WB and its buffer will protect State Wetland A-35 and its 100 ft. adjacent area (buffer).
  - The conservation easement associated with Wetland WB and its buffer will protect the potential vernal habitat within Wetland WB, including the breeding pool and adjacent wetland and upland dispersal habitat. The protection of breeding pools and dispersal habitat will benefit focal species that could occur on



the site including wood frog (observed by Weston & Sampson) and other potential herpetofauna that may use vernal habitats.

2. The applicant will plant approximately 132 native trees onsite. To provide mitigation for the remainder of trees removed for the proposed development, the applicant will contribute to the designated environmental fund and coordinate with the Town to explore the potential to plant additional trees at offsite locations; and
3. The limits of disturbance, including tree clearing, will be clearly demarcated in the field to avoid unintended disturbance to adjacent areas. Where the proposed limit of disturbance comes closest to wetland buffers, such as in the western portion of the site, additional markers such as orange fencing or stakes/ribbon will be placed along the limits of the buffers to demarcate these sensitive resources;
4. Plant native, low grow seed mix within the solar array area to minimize the amount of mowing required and provide habitat for wildlife during the operational phase; and
5. Keep stockpiles and staging areas within the proposed limits of disturbance.
6. Strict adherence to the soil erosion and sediment control measures, including regular inspections and repair (if necessary) of the silt fence to ensure functional integrity.

KJ/kj

Figures:

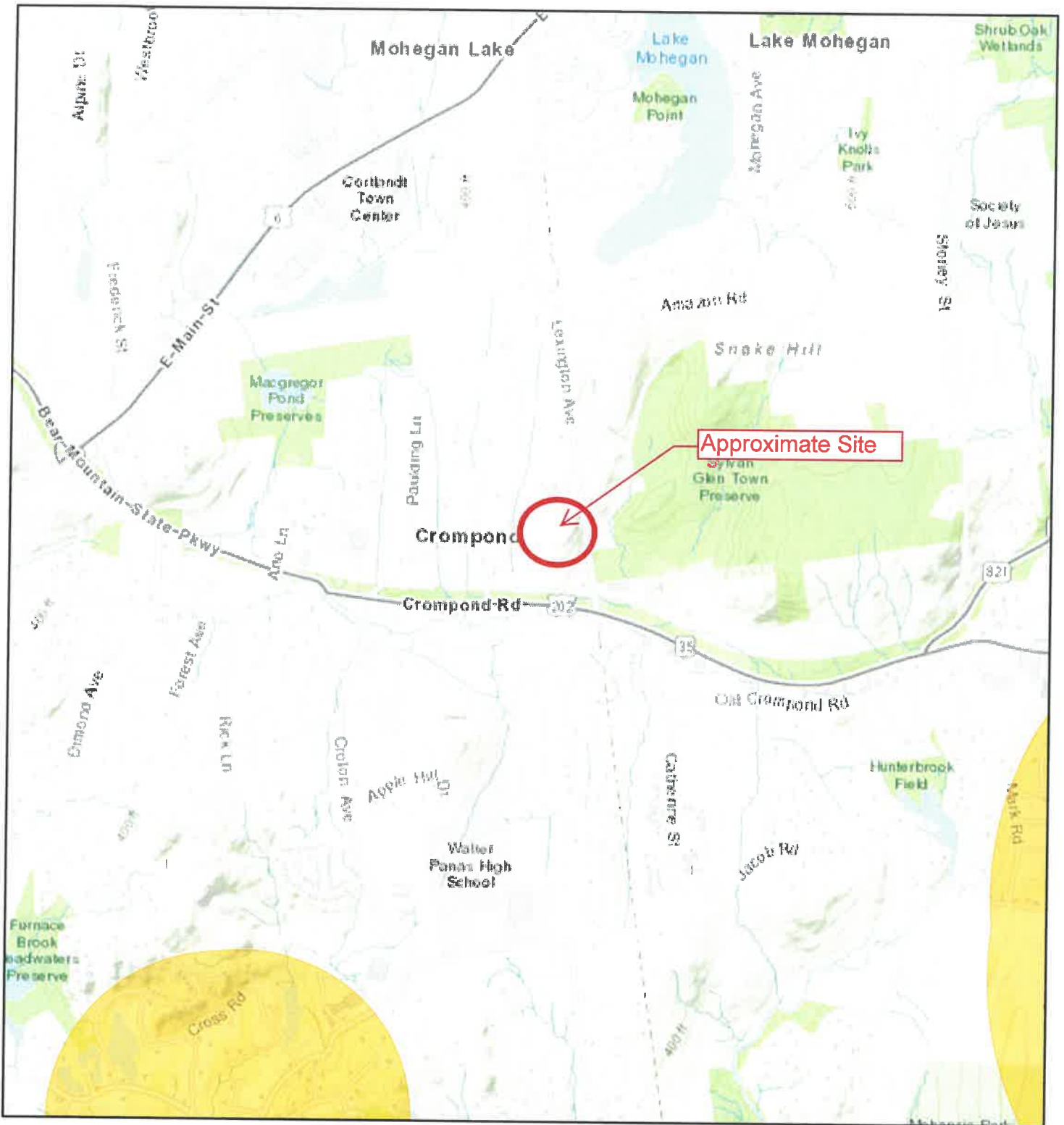
1. NYSDEC Rare Species and Significant Natural Communities
2. One-mile tree cover
3. Two-mile tree cover
4. Wetland Conservation Easement Sketch

Attachments:

1. Full EAF
2. NHP database search results
3. Qualifications

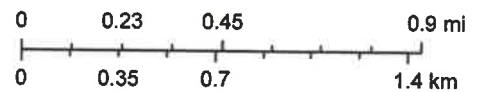


# Figure 1 - Rare Species and Significant Natural Communities



November 25, 2020

1:36,112



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

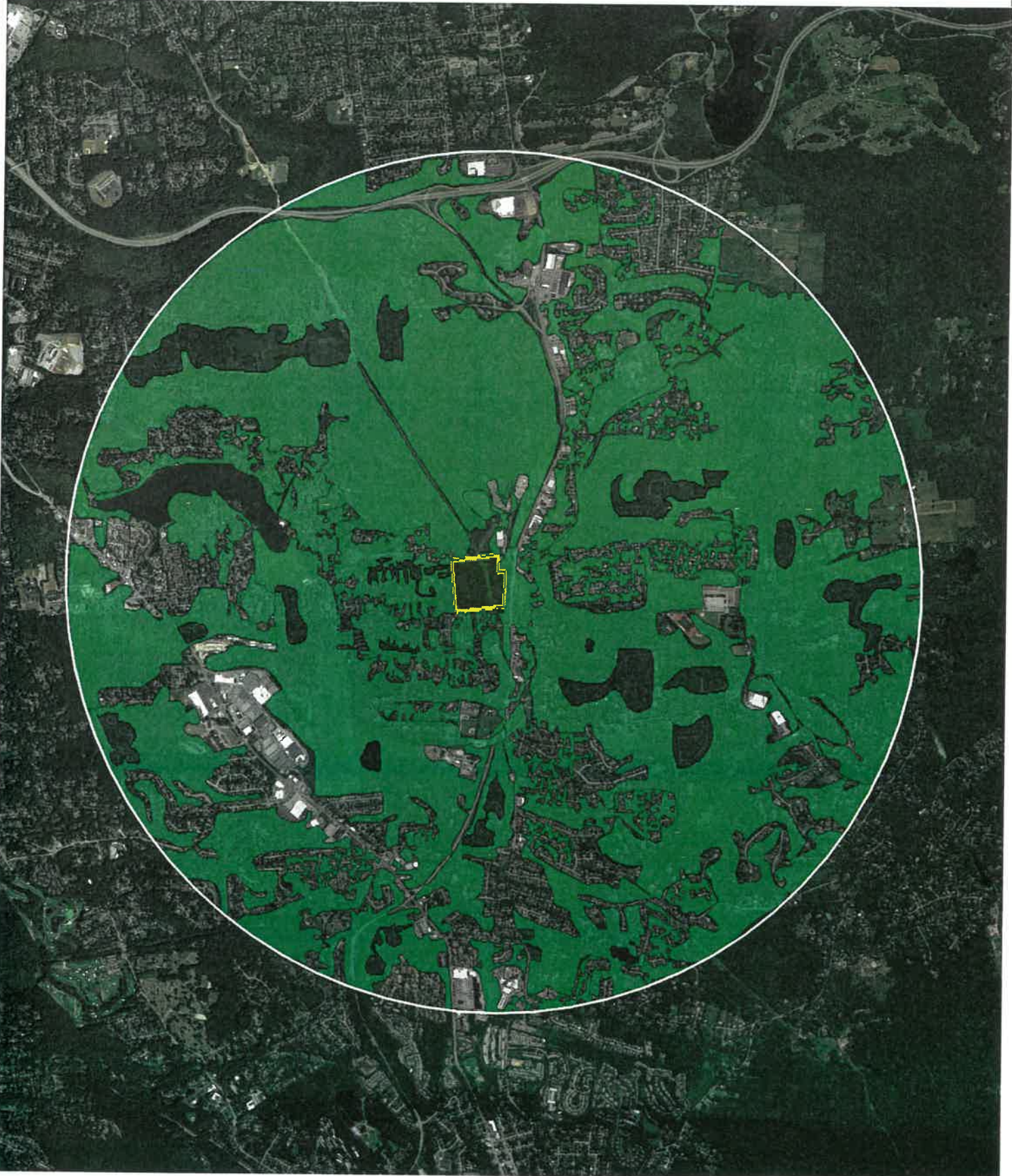


**Figure 2**

1-Mile Tree Cover

2711 Lexington Avenue, Cortland  
NY 10547

Lexington Avenue Tree Removal:  
12 acres  
Total Tree Area: 1,443 acres  
Percentage: 0.8%



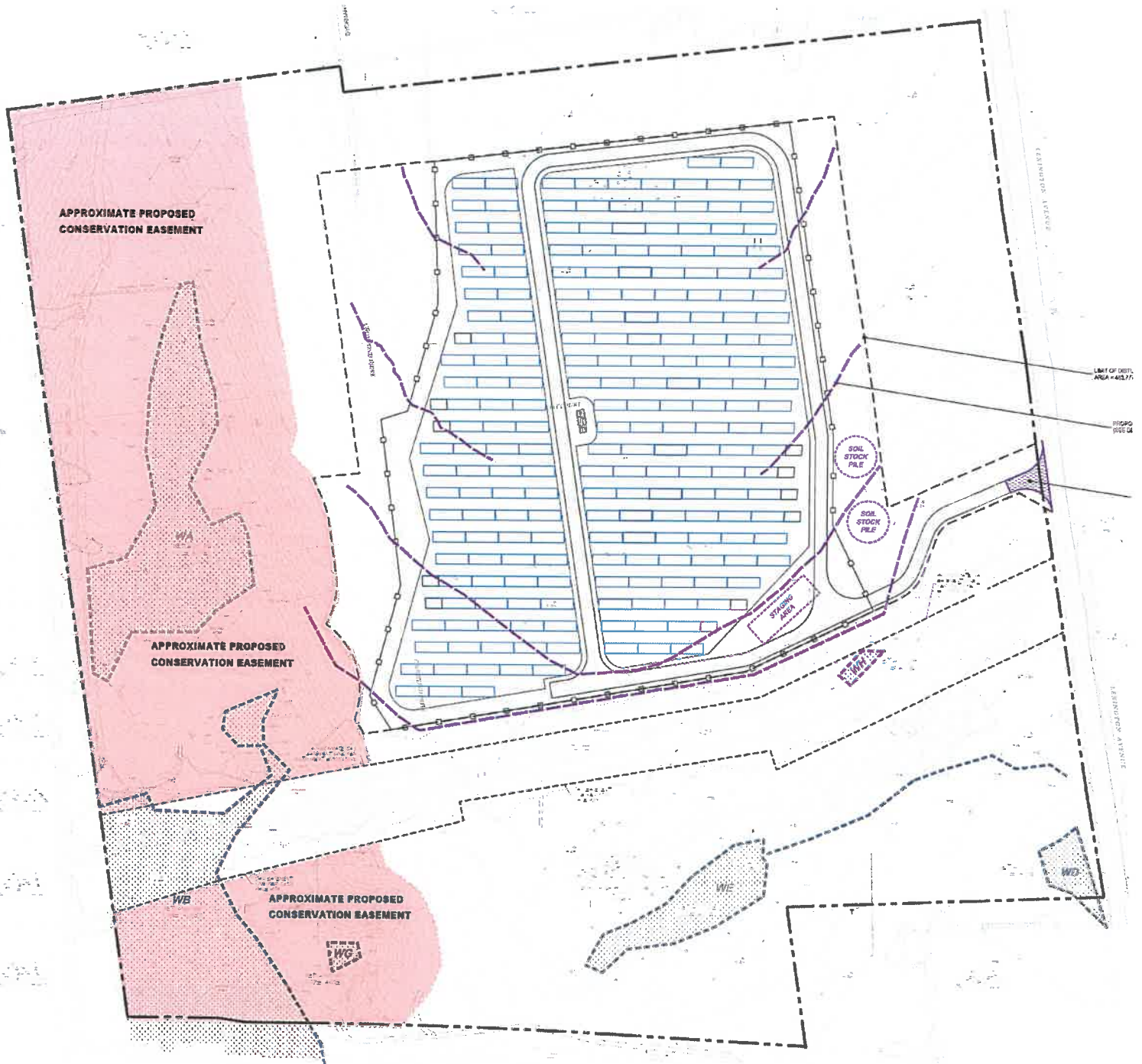
**Figure 3.**

2-Mile Tree Cover

2711 Lexington Avenue, Cortland  
NY 10547

Lexington Avenue Solar Project  
Tree Removal: 12 acres  
Total Tree Area: 5,093 acres  
Percentage: 0.2%

**Figure 4. Wetland Conservation Easement Sketch**  
Dimension Renewable Energy – Lexington Avenue Solar Facility, Cortlandt, NY



## 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

December 2, 2020

Kieran Siao  
Cortlandt CSG LLC  
3280 Peachtree Rd NE, 7th Floor  
Atlanta, GA 30305

Re: Lexington Avenue Solar Project  
County: Westchester Town/City: Cortlandt

Dear Kieran Siao:

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

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on 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 resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; 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 3 Office, Division of Environmental Permits, at [dep.r3@dec.ny.gov](mailto:dep.r3@dec.ny.gov).

Sincerely,



Heidi Krahl  
Environmental Review Specialist  
New York Natural Heritage Program

**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 applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

**A. Project and Applicant/Sponsor Information.**

Name of Action or Project: <b>Lexington Avenue Solar Project</b>		
Project Location (describe, and attach a general location map): <b>Lexington Avenue and NYS Route 202</b>		
Brief Description of Proposed Action (include purpose or need): <b>Development of a vacant wooded site into a 2.3 Mega-Watt community solar power system. Construction includes the solar panel arrays, pervious access road, stormwater management facilities, perimeter fencing, and a landscaping program.</b>		
Name of Applicant/Sponsor: <b>Cortlandt CSG LLC</b>	Telephone: <b>631-848-4899</b>	
	E-Mail: <b>ksiao@dimension-energy.com</b>	
Address: <b>3280 Peachtree Road, 7th floor</b>		
City/PO: <b>Atlanta</b>	State: <b>GA</b>	Zip Code: <b>30305</b>
Project Contact (if not same as sponsor; give name and title/role): <b>Cronin Engineering P.E. P.C.</b>	Telephone: <b>914-736-3664</b>	
	E-Mail: <b>keith@croninengineering.net</b>	
Address: <b>39 Arlo Lane</b>		
City/PO: <b>Cortlandt Manor</b>	State: <b>NY</b>	Zip Code: <b>10567</b>
Property Owner (if not same as sponsor): <b>Kulick, Irving J. etal</b>	Telephone: _____	
	E-Mail: _____	
Address: <b>150 East 58th Street, Floor 16</b>		
City/PO: <b>New York</b>	State: <b>NY</b>	Zip Code: <b>10155</b>

**B. Government Approvals**

<b>B. Government Approvals, Funding, or Sponsorship.</b> (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)		
<b>Government Entity</b>	<b>If Yes: Identify Agency and Approval(s) Required</b>	<b>Application Date (Actual or projected)</b>
a. City Counsel, Town Board, or Village Board of Trustees <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Town Board - Special Permit	
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Planning Board - Site Plan, Steep Slopes, Wetlands and Tree Permit	
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	County Planning	
f. Regional agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYCDEP - Stormwater	
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC - Stormwater, Wetlands	
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 type="checkbox"/> Yes <input checked="" 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**

<b>C.1. Planning and zoning actions.</b>	
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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<ul style="list-style-type: none"> <li>• If Yes, complete sections C, F and G.</li> <li>• If No, proceed to question C.2 and complete all remaining sections and questions in Part 1</li> </ul>	
<b>C.2. Adopted land use plans.</b>	
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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, identify the plan(s): <div style="margin-left: 40px;"> <span style="color: red;">NYC Watershed Boundary</span> </div>	
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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?

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? \_\_\_\_\_ Lakeland Central School District

b. What police or other public protection forces serve the project site?  
\_\_\_\_\_ State Police and County Police

c. Which fire protection and emergency medical services serve the project site?  
\_\_\_\_\_ Mohegan Lake Fire District

d. What parks serve the project site?  
\_\_\_\_\_ FDR State Park, Blue Mountain Reservation

### 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)? Project involves the development of a 2.3 Mega-Watt community solar energy system

b. a. Total acreage of the site of the proposed action? \_\_\_\_\_ acres

b. Total acreage to be physically disturbed? \_\_\_\_\_ acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? \_\_\_\_\_ 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 the proposed action be constructed in multiple phases?  Yes  No

i. If No, anticipated period of construction: 12 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?  Yes  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)?  Yes  No  
If Yes, **Project is the construction of a 2.3 Mega-Watt solar energy system, see plans**

i. Total number of structures \_\_\_\_\_  
ii. Dimensions (in feet) of largest proposed structure: \_\_\_\_\_ height; \_\_\_\_\_ width; and \_\_\_\_\_ length  
iii. Approximate extent of building space to be heated or cooled: \_\_\_\_\_ 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?  Yes  No

If Yes,  
i. Purpose of the impoundment: \_\_\_\_\_  
ii. If a water impoundment, the principal source of the water:  Ground water  Surface water streams  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? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)  Yes  No

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?  Yes  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?  Yes  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?  Yes  No

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 the proposed action cause or result in disturbance to bottom sediments?  Yes  No  
If Yes, describe: \_\_\_\_\_

iv. Will the 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), what is the 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

- Do existing sewer lines serve the project site?  Yes  No
- Will a line extension within an existing district be necessary to serve the project?  Yes  No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_  
\_\_\_\_\_

- iv. Will a new wastewater (sewage) treatment district be formed to serve the project site?  Yes  No

If Yes:

- Applicant/sponsor for new district: \_\_\_\_\_
- Date application submitted or anticipated: \_\_\_\_\_
- What is the receiving water for the wastewater discharge? \_\_\_\_\_

- 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):

\_\_\_\_\_

- vi. Describe any plans or designs to capture, recycle or reuse liquid waste: \_\_\_\_\_  
\_\_\_\_\_

- 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?  Yes  No

If Yes:

- i. How much impervious surface will the project create in relation to total size of project parcel?

\_\_\_\_\_ <sup>0</sup> Square feet or \_\_\_\_\_ <sup>0</sup> acres (impervious surface)  
\_\_\_\_\_ Square feet or \_\_\_\_\_ acres (parcel size)

- ii. Describe types of new point sources. \_\_\_\_\_

- 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)?

**On-site stormwater management systems**

- If to surface waters, identify receiving water bodies or wetlands: \_\_\_\_\_  
\_\_\_\_\_

- Will stormwater runoff flow to adjacent properties?  Yes  No

- iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?  Yes  No

- 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?  Yes  No

If Yes, identify:

- i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

- ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

- iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

- 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?  Yes  No

If Yes:

- 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)  Yes  No

- ii. In addition to emissions as calculated in the application, the project will generate:

- \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)
- \_\_\_\_\_ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)
- \_\_\_\_\_ Tons/year (short tons) of Perfluorocarbons (PFCs)
- \_\_\_\_\_ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)
- \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs)
- \_\_\_\_\_ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)?  Yes  No

If Yes:

- i. Estimate methane generation in tons/year (metric): \_\_\_\_\_
- ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): \_\_\_\_\_

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations?  Yes  No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): \_\_\_\_\_

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?  Yes  No

If Yes:

- i. When is the peak traffic expected (Check all that apply):  Morning  Evening  Weekend  
 Randomly between hours of \_\_\_\_\_ to \_\_\_\_\_.
- ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): \_\_\_\_\_

iii. Parking spaces: Existing \_\_\_\_\_ Proposed \_\_\_\_\_ Net increase/decrease \_\_\_\_\_

iv. Does the proposed action include any shared use parking?  Yes  No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: \_\_\_\_\_

vi. Are public/private transportation service(s) or facilities available within 1/2 mile of the proposed site?  Yes  No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles?  Yes  No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes?  Yes  No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy?  Yes  No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: \_\_\_\_\_

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): \_\_\_\_\_

iii. Will the proposed action require a new, or an upgrade, to an existing substation?  Yes  No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 8:00 am to 5:00 pm
- Saturday: 8:00 am to 5:00 pm
- Sunday: None
- Holidays: None

ii. During Operations:

- Monday - Friday: Continuos solar energy system
- Saturday: \_\_\_\_\_
- Sunday: \_\_\_\_\_
- Holidays: \_\_\_\_\_

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?  Yes  No  
 If yes:  
 i. Provide details including sources, time of day and duration:  
 \_\_\_\_\_  
 \_\_\_\_\_

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen?  Yes  No  
 Describe: \_\_\_\_\_  
 \_\_\_\_\_

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n. Will the proposed action have outdoor lighting?  Yes  No  
 If yes:  
 i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:  
 \_\_\_\_\_  
 \_\_\_\_\_

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen?  Yes  No  
 Describe: \_\_\_\_\_  
 \_\_\_\_\_

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o. Does the proposed action have the potential to produce odors for more than one hour per day?  Yes  No  
 If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:  
 \_\_\_\_\_  
 \_\_\_\_\_

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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?  Yes  No  
 If Yes:  
 i. Product(s) to be stored \_\_\_\_\_  
 ii. Volume(s) \_\_\_\_\_ per unit time \_\_\_\_\_ (e.g., month, year)  
 iii. Generally, describe the proposed storage facilities: \_\_\_\_\_  
 \_\_\_\_\_

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q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation?  Yes  No  
 If Yes:  
 i. Describe proposed treatment(s):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

ii. Will the proposed action use Integrated Pest Management Practices?  Yes  No

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r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)?  Yes  No  
 If Yes:  
 i. Describe any solid waste(s) to be generated during construction or operation of the facility:  
 • Construction: \_\_\_\_\_ tons per \_\_\_\_\_ (unit of time)  
 • Operation : \_\_\_\_\_ tons per \_\_\_\_\_ (unit of time)  
 ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:  
 • Construction: \_\_\_\_\_  
 • Operation: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

iii. Proposed disposal methods/facilities for solid waste generated on-site:  
 • 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

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t. Will the 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.

Urban  Industrial  Commercial  Residential (suburban)  Rural (non-farm)

Forest  Agriculture  Aquatic  Other (specify): \_\_\_\_\_

ii. If mix of uses, generally describe: \_\_\_\_\_

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b. Land uses and covertypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.0	0.0	0.0
• Forested	27.1	16.0	-11.1
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	2.5 (gas r.o.w.)	13.4	10.9
• Agricultural (includes active orchards, field, greenhouse etc.)	0.0	0.0	0.0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0.0	0.0	0.0
• Wetlands (freshwater or tidal)	4.3	4.3	0.0
• Non-vegetated (bare rock, earth or fill)	0.0	0.0	0.0
• Other Describe: <u>pervious access road</u>	n/a	0.2	0.2

Total acreage = 33.9 Ac.

c. Is the project site presently used by members of the community for public recreation?  Yes  No  
i. If Yes: explain: \_\_\_\_\_

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?  Yes  No  
If Yes,  
i. Identify Facilities: \_\_\_\_\_

e. Does the project site contain an existing dam?  Yes  No  
If Yes:  
i. Dimensions of the dam and impoundment:  
• Dam height: \_\_\_\_\_ feet  
• Dam length: \_\_\_\_\_ feet  
• Surface area: \_\_\_\_\_ acres  
• Volume impounded: \_\_\_\_\_ gallons OR acre-feet  
ii. Dam's existing hazard classification: \_\_\_\_\_  
iii. Provide date and summarize results of last inspection: \_\_\_\_\_

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility?  Yes  No  
If Yes:  
i. Has the facility been formally closed?  Yes  No  
• If yes, cite sources/documentation: \_\_\_\_\_  
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility: \_\_\_\_\_  
iii. Describe any development constraints due to the prior solid waste activities: \_\_\_\_\_

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste?  Yes  No  
If Yes:  
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred: \_\_\_\_\_

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?  Yes  No  
If Yes:  
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:  Yes  No  
 Yes – Spills Incidents database Provide DEC ID number(s): \_\_\_\_\_  
 Yes – Environmental Site Remediation database Provide DEC ID number(s): \_\_\_\_\_  
 Neither database  
ii. If site has been subject of RCRA corrective activities, describe control measures: \_\_\_\_\_  
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?  Yes  No  
If yes, provide DEC ID number(s): \_\_\_\_\_  
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s): \_\_\_\_\_

v. Is the project site subject to an institutional control limiting property uses?  Yes  No

- 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?  Yes  No
- Explain: \_\_\_\_\_

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**E.2. Natural Resources On or Near Project Site**

a. What is the average depth to bedrock on the project site? \_\_\_\_\_ >7' feet

b. Are there bedrock outcroppings on the project site?  Yes  No  
 If Yes, what proportion of the site is comprised of bedrock outcroppings? \_\_\_\_\_ 1 %

c. Predominant soil type(s) present on project site:

Paxton Fine Sandy Loams	_____	63.5 %
Ridgebury Complexes	_____	21.5 %
Charlton Loam	_____	4.5 %

d. What is the average depth to the water table on the project site? Average: \_\_\_\_\_ feet

e. Drainage status of project site soils:  Well Drained: \_\_\_\_\_ 75 % of site  
 Moderately Well Drained: \_\_\_\_\_ 10 % of site  
 Poorly Drained \_\_\_\_\_ 15 % of site

f. Approximate proportion of proposed action site with slopes:  0-10%: \_\_\_\_\_ 30 % of site  
 10-15%: \_\_\_\_\_ 30 % of site  
 15% or greater: \_\_\_\_\_ 40 % of site

g. Are there any unique geologic features on the project site?  Yes  No  
 If Yes, describe: \_\_\_\_\_

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h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?  Yes  No

ii. Do any wetlands or other waterbodies adjoin the project site?  Yes  No  
 If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?  Yes  No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name \_\_\_\_\_ Classification \_\_\_\_\_
- Lakes or Ponds: Name \_\_\_\_\_ Classification \_\_\_\_\_
- Wetlands: Name NYS Wetland Approximate Size NYS Wetland (in a...
- Wetland No. (if regulated by DEC) A-35

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  Yes  No  
 If yes, name of impaired water body/bodies and basis for listing as impaired: \_\_\_\_\_

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i. Is the project site in a designated Floodway?  Yes  No

j. Is the project site in the 100-year Floodplain?  Yes  No

k. Is the project site in the 500-year Floodplain?  Yes  No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  Yes  No  
 If Yes:

i. Name of aquifer: \_\_\_\_\_



m. Identify the predominant wildlife species that occupy or use the project site: \_\_\_\_\_  
**Typical animals include:** \_\_\_\_\_  
**small mammals and birds** \_\_\_\_\_  
**deer** \_\_\_\_\_

n. Does the project site contain a designated significant natural community?  Yes  No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): \_\_\_\_\_

ii. Source(s) of description or evaluation: \_\_\_\_\_

iii. Extent of community/habitat:

- Currently: \_\_\_\_\_ acres
- Following completion of project as proposed: \_\_\_\_\_ acres
- Gain or loss (indicate + or -): \_\_\_\_\_ acres

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?  Yes  No

If Yes:

i. Species and listing (endangered or threatened): \_\_\_\_\_

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?  Yes  No

If Yes:

i. Species and listing: \_\_\_\_\_

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing?  Yes  No

If yes, give a brief description of how the proposed action may affect that use: \_\_\_\_\_

### E.3. Designated Public Resources On or Near Project Site

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?  Yes  No

If Yes, provide county plus district name/number: \_\_\_\_\_

b. Are agricultural lands consisting of highly productive soils present?  Yes  No

i. If Yes: acreage(s) on project site? \_\_\_\_\_

ii. Source(s) of soil rating(s): \_\_\_\_\_

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark?  Yes  No

If Yes:

i. Nature of the natural landmark:  Biological Community  Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: \_\_\_\_\_

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area?  Yes  No

If Yes:

i. CEA name: \_\_\_\_\_

ii. Basis for designation: \_\_\_\_\_

iii. Designating agency and date: \_\_\_\_\_

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?  Yes  No  
 If Yes:  
 i. Nature of historic/archaeological resource:  Archaeological Site  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?  Yes  No

g. Have additional archaeological or historic site(s) or resources been identified on the project site?  Yes  No  
 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?  Yes  No  
 If Yes:  
 i. Identify resource: \_\_\_\_\_  
 ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): \_\_\_\_\_  
 iii. Distance between project and resource: \_\_\_\_\_ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?  Yes  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?  Yes  No

**F. Additional Information**

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

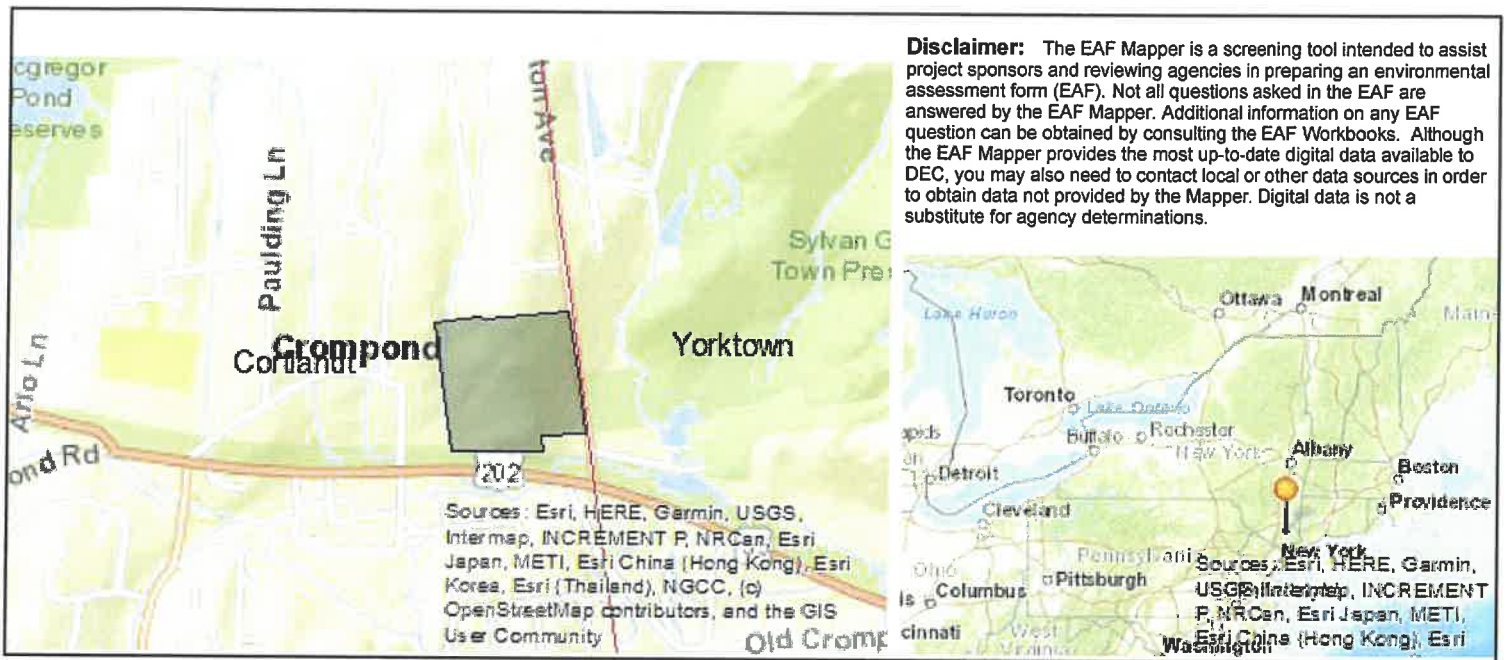
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

**G. Verification**

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

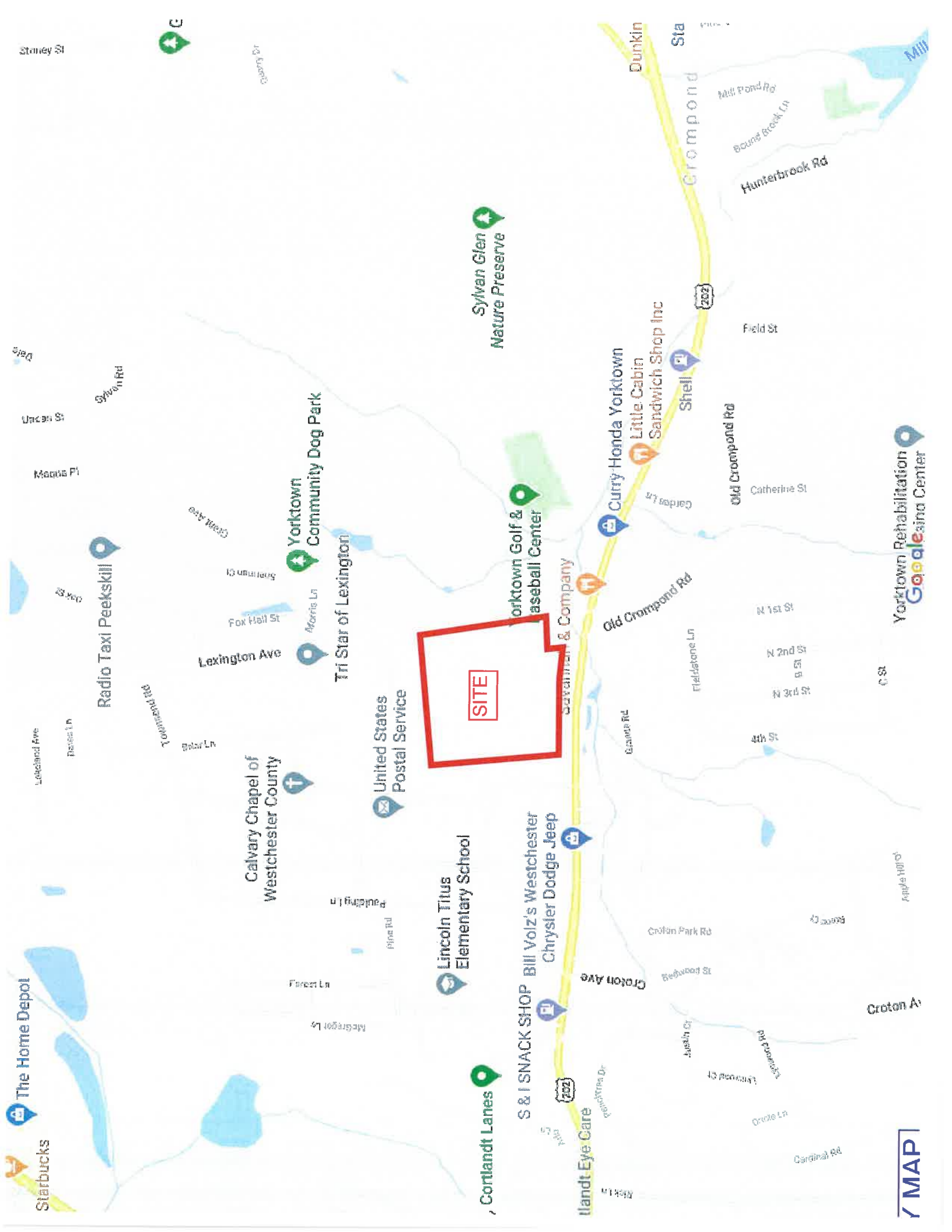
Applicant/Sponsor Name Cronin Engineering P.E. P.C. Date June 25, 2020

Signature  Title Project Manager, Cronin Engineering P.E. P.C.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYC Watershed Boundary
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 - Wetlands Name]	NYS Wetland
E.2.h.iv [Surface Water Features - Wetlands Size]	NYS Wetland (in acres):24.0
E.2.h.iv [Surface Water Features - DEC Wetlands Number]	A-35
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No

E.2.k. [1000 Year Flooding]	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 or State Register of Historic Places or State Eligible Sites]	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



**SITE**

Yorktown Golf & Baseball Center

Lincoln Titus Elementary School

S & I SNACK SHOP  
 Bill Volz's Westchester Chrysler Dodge Jeep

Curry Honda Yorktown

Little Cabin Sandwich Shop Inc

Shell

Yorktown Community Dog Park

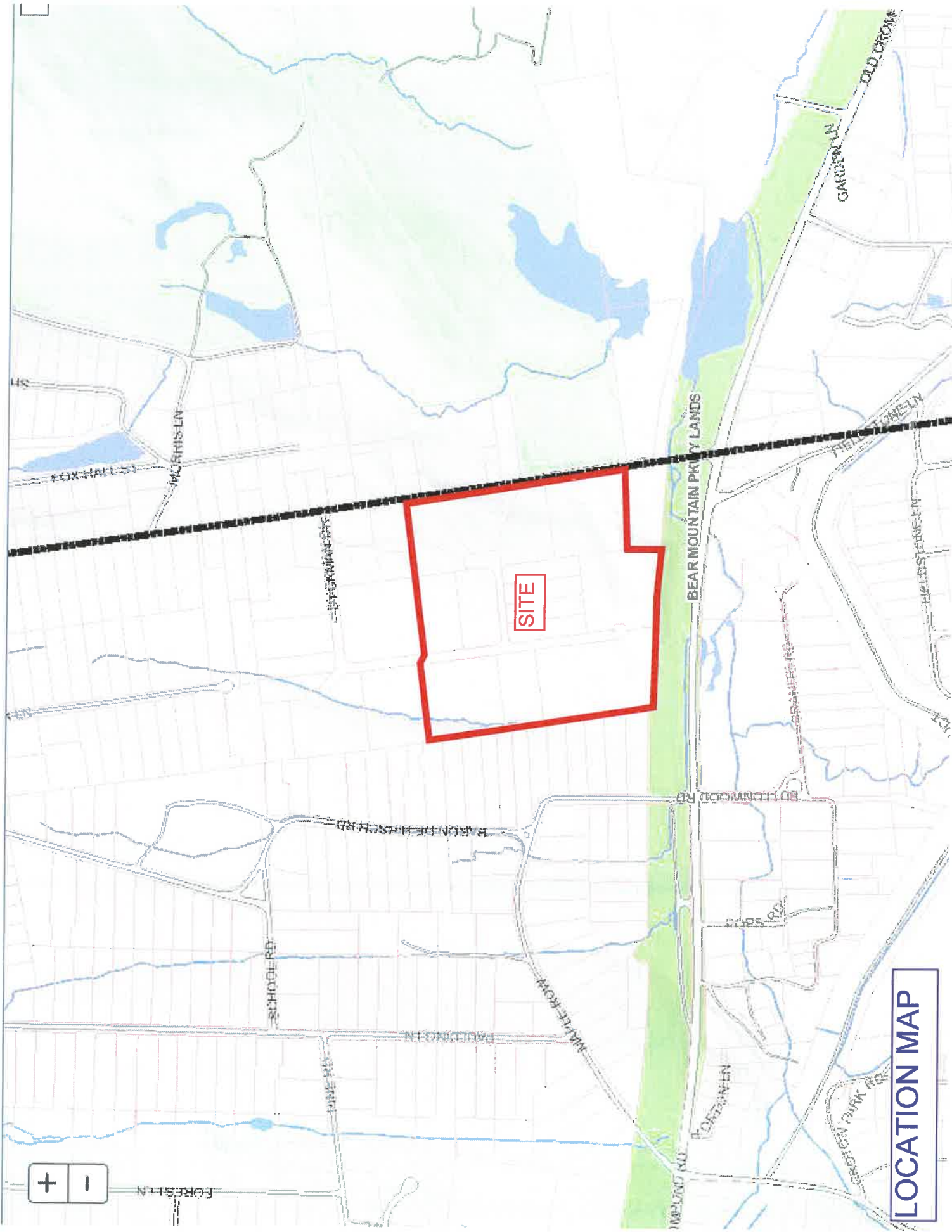
Tri Star of Lexington

United States Postal Service

Calvary Chapel of Westchester County

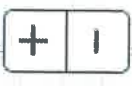
Yorktown Rehabilitation Center

MAP



SITE

LOCATION MAP



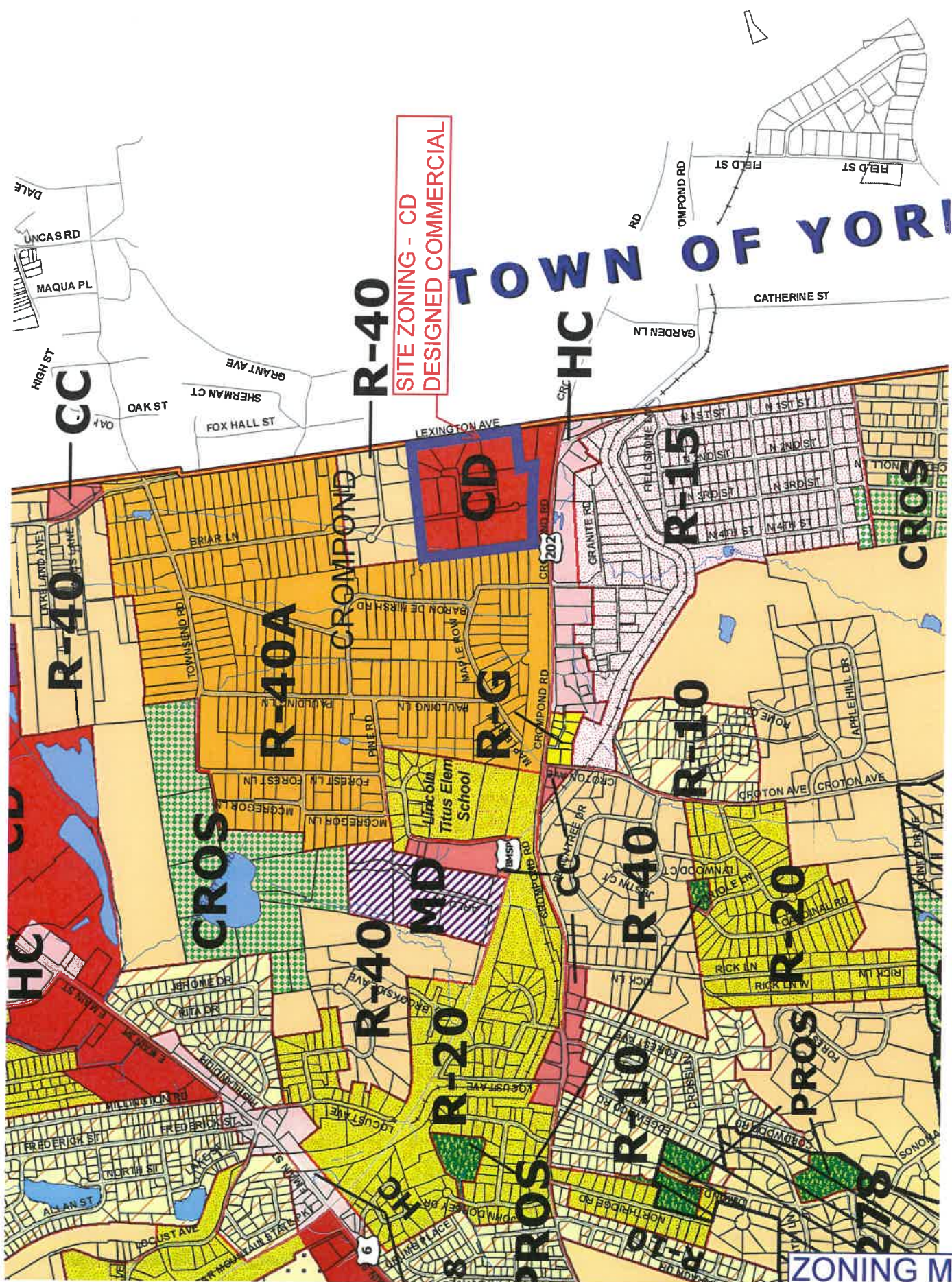


SITE

202

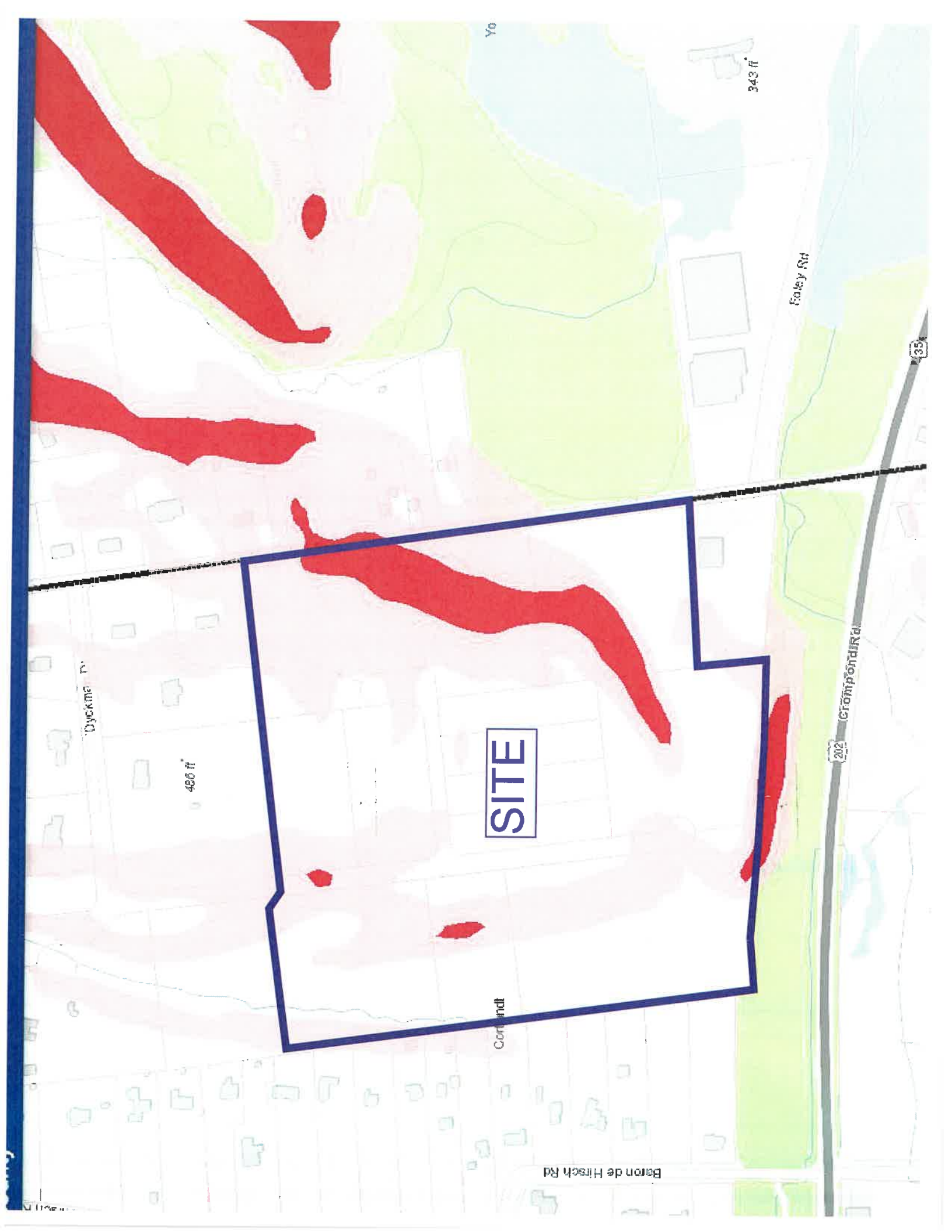
AERIAL MAP

# TOWN OF YORK



**SITE ZONING - CD  
DESIGNED COMMERCIAL**





SITE

Dyckma P.

480 ft

343 ft

Foley Rd

202 Crompond Rd

Crompond

Baron de Hirsch Rd



# Environmental Resource Mapper

**Search**

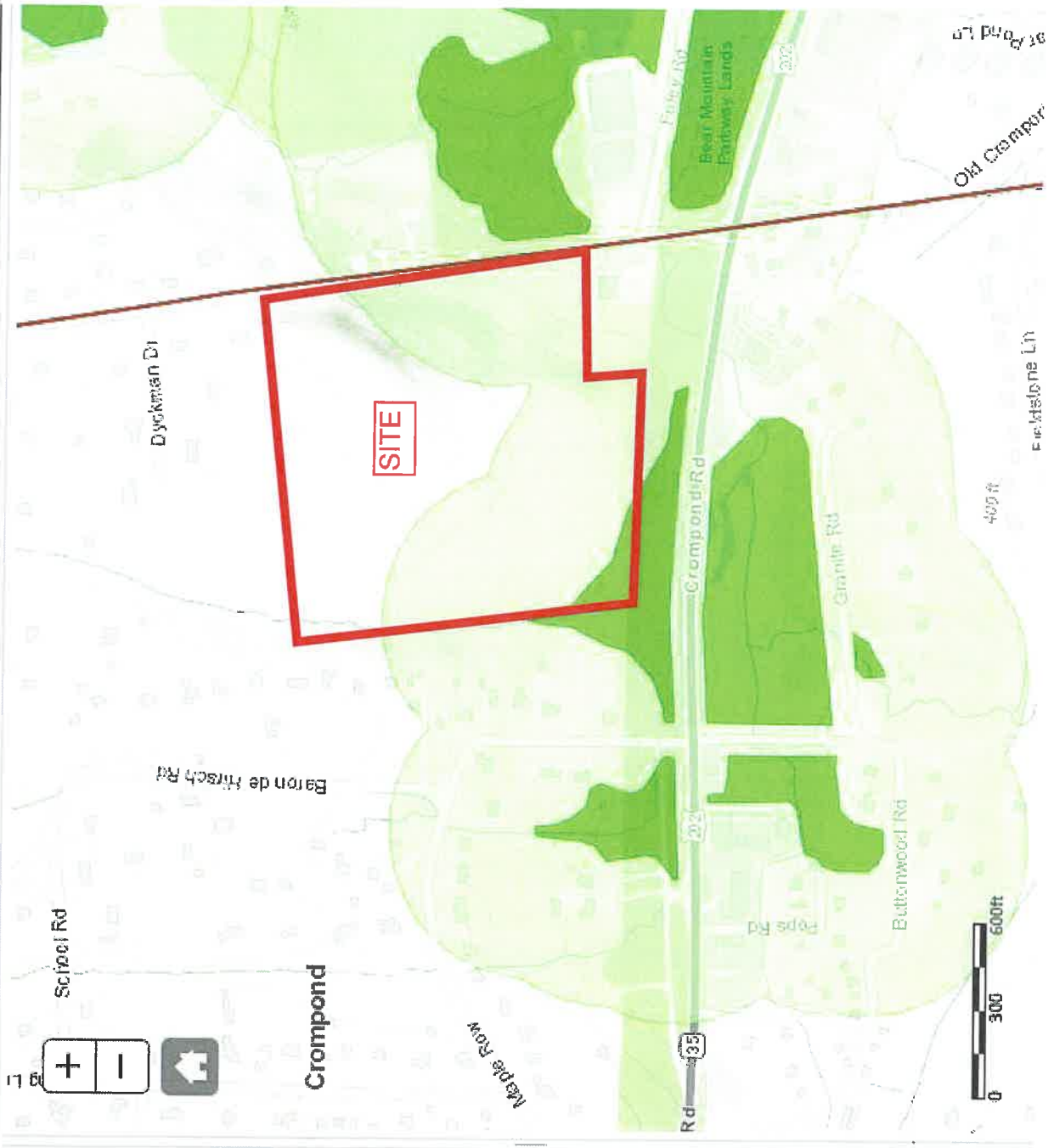
**Tools**

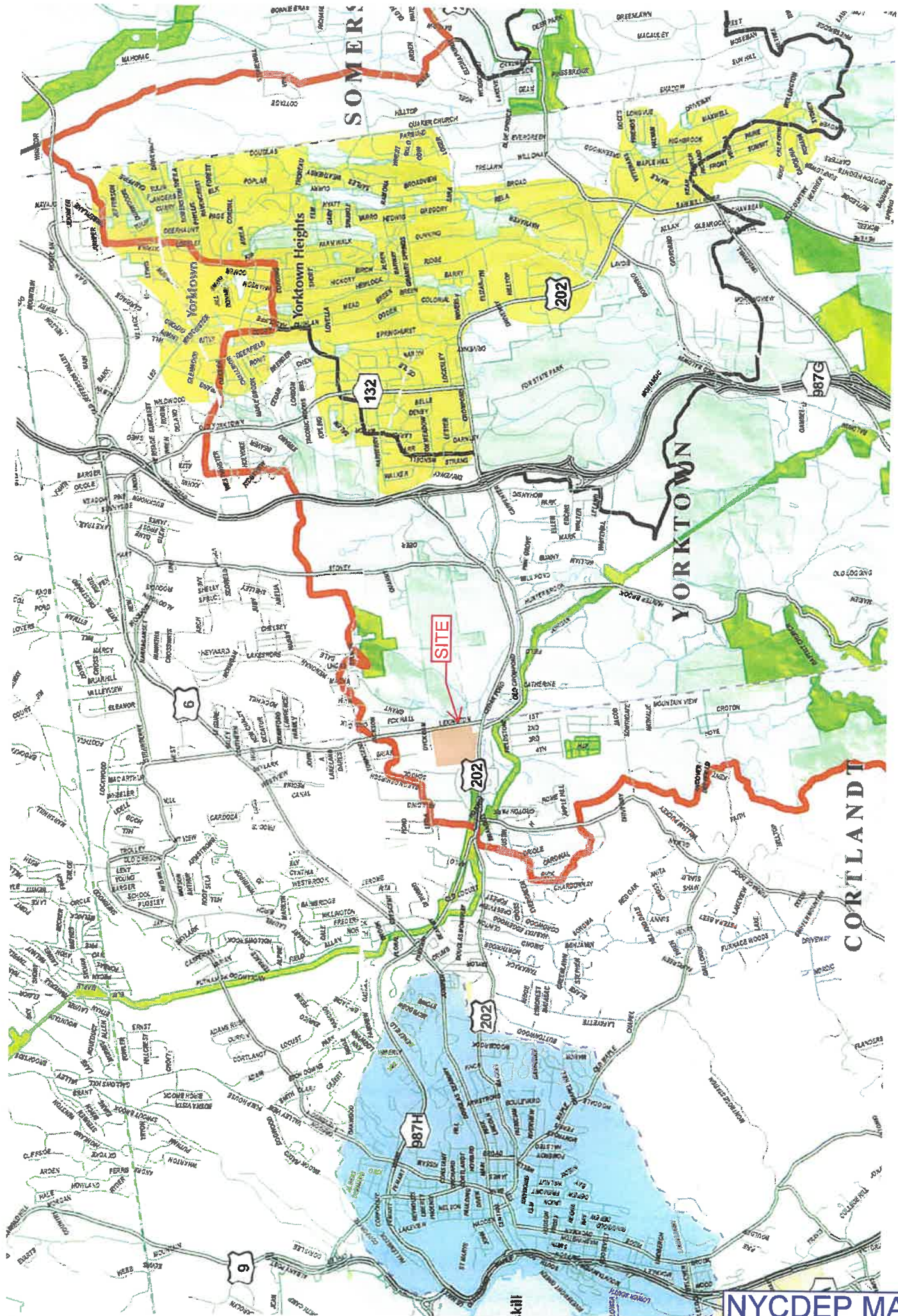
**Layers and Legend**

All Layers

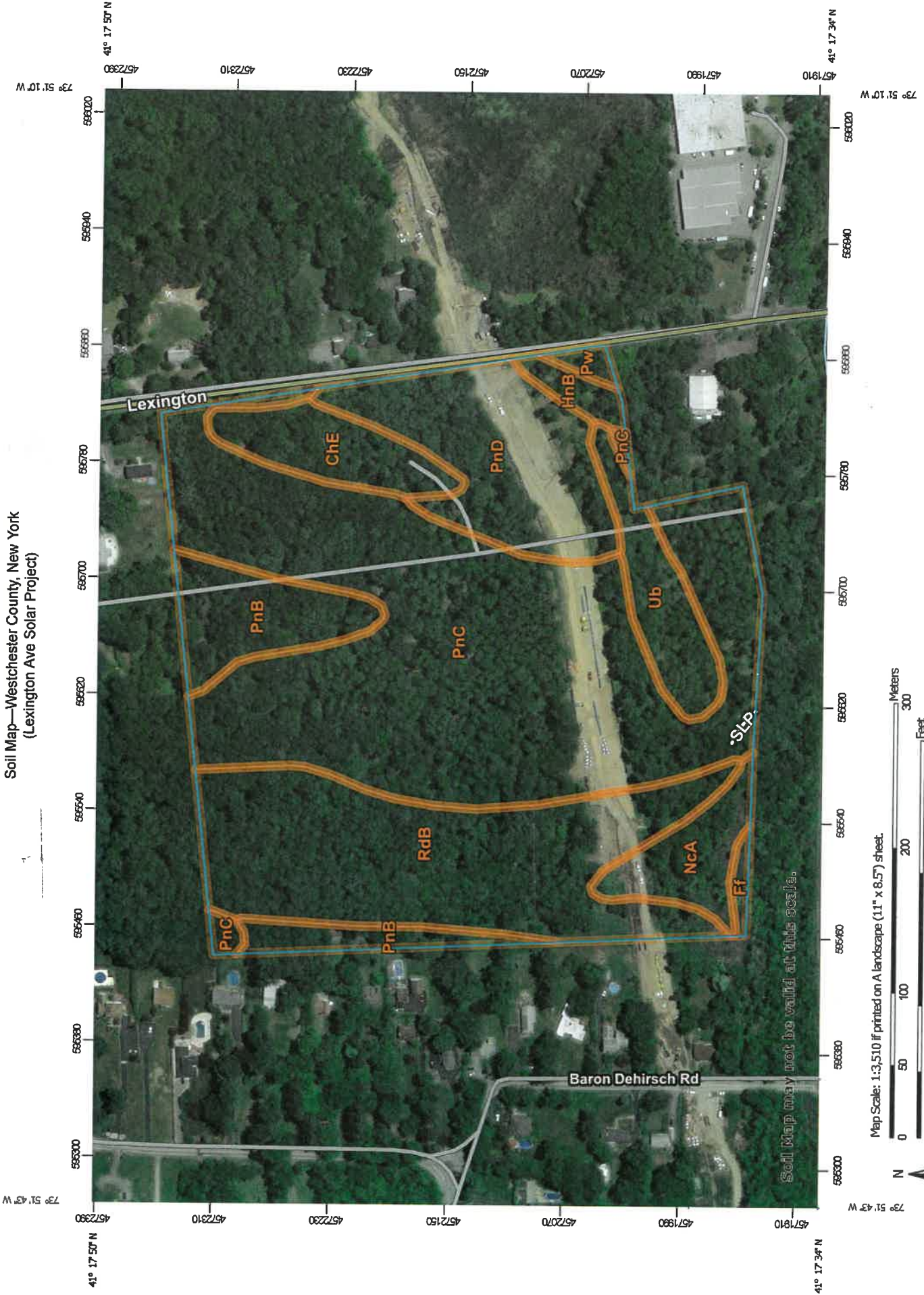
- ★ Unique Geological Features
- Waterbody Classifications for Rivers/Streams
- Waterbody Classifications for Lakes
- State Regulated Freshwater Wetlands (Outside of the Adirondack Park)
- State Regulated Wetland Checkzone
- Significant Natural Communities
- Natural Communities Near This Location
- Rare Plants or Animals

**Other Wetland Layers**





Soil Map—Westchester County, New York  
(Lexington Ave Solar Project)












































Map Scale: 1:3,510 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



## MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Soils	 Stony Spot
 Soil Map Unit Polygons	 Very Stony Spot
 Soil Map Unit Lines	 Wet Spot
 Soil Map Unit Points	 Other
 Special Point Features	 Special Line Features
 Blowout	 Water Features
 Borrow Pit	 Streams and Canals
 Clay Spot	 Transportation
 Closed Depression	 Rails
 Gravel Pit	 Interstate Highways
 Gravelly Spot	 US Routes
 Landfill	 Major Roads
 Lava Flow	 Local Roads
 Marsh or swamp	 Background
 Mine or Quarry	 Aerial Photography
 Miscellaneous Water	
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodic Spot	

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

**Warning:** Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Westchester County, New York  
Survey Area Data: Version 15, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ChE	Charlton loam, 25 to 35 percent slopes	1.6	4.5%
Ff	Fluvaquents-Udifulvents complex, frequently flooded	0.2	0.5%
HnB	Hinckley loamy sand, 3 to 8 percent slopes	0.4	1.2%
NcA	Natchaug muck, 0 to 2 percent slopes	1.4	3.8%
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	2.6	7.2%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	16.3	45.3%
PnD	Paxton fine sandy loam, 15 to 25 percent slopes	4.0	11.0%
Pw	Pompton silt loam, loamy substratum	0.2	0.5%
RdB	Ridgebury complex, 3 to 8 percent slopes	7.8	21.5%
Ub	Udorthents, smoothed	1.6	4.5%
<b>Totals for Area of Interest</b>		<b>36.1</b>	<b>100.0%</b>

**KEVIN JAMIESON, PWS**

Principal Associate/Ecological Services

## EXPERIENCE

## EDUCATION

- M.S. Biology, Montclair State University, 2012
- B.S. Natural Resource Management (Ecology), Rutgers University, 2001

## PROFESSIONAL CERTIFICATIONS

- Professional Wetland Scientist (Certification Number 2439)
- Wetland Delineation Certification, Rutgers University, 2001
- USFWS List of Recognized Qualified Indiana Bat Surveyors, 2008 to Present, New Jersey and New York
- USFWS List of Recognized Qualified Bog Turtle Surveyors, 2010 to Present, New Jersey and New York
- OSHA 40 Hr Health and Safety and 8 Hr Refresher
- OSHA 10 Hr Construction

PROFESSIONAL AFFILIATIONS  
(PAST & PRESENT)

- Society of Wetland Scientists
- New York State Wetlands Forum
- Southern Gas Association

## APPOINTMENTS

- Delaware Township, Senior Environmental Scientist

Mr. Jamieson is an Environmental Scientist/Ecologist with over 15 years of experience in ecological and regulatory consulting. He specializes in wetland assessment and delineation, wetland and riparian zone mitigation, threatened and endangered species assessments and surveys, natural resource inventories and evaluations, environmental impact analyses, and environmental permitting and compliance at the local, state, and federal levels.

Mr. Jamieson is certified as a Professional Wetland Scientist by the Society of Wetland Scientists. He has managed and performed wetland assessments and delineations throughout the northeast and mid-Atlantic and secured freshwater wetland permit authorizations for various types of projects, including utilities, energy, industrial, commercial, residential, and recreational. He has also assisted in the preparation of compensatory wetland mitigation and riparian zone mitigation plans. Mr. Jamieson is recognized by the U.S. Fish and Wildlife Service as a qualified bog turtle (*Glyptemys muhlenbergii*) surveyor and qualified Indiana bat (*Myotis sodalis*) surveyor in New York and New Jersey and is familiar with the biology and survey techniques for a variety of flora and fauna that occur in the northeast and mid-Atlantic regions of the United States. He has performed habitat assessments, presence/absence surveys, and construction monitoring for a number of threatened and endangered species.

Mr. Jamieson is proficient in performing ecological field studies and is an experienced project manager who possesses the necessary technical skills, regulatory knowledge, and creativity to effectively and responsibly guide projects through local, state, and federal reviews. With his positive attitude, technical skill set, regulatory knowledge, and diverse experience, Mr. Jamieson has established himself as a well-respected professional in the ecological and regulatory consulting industry.

## WETLAND INVESTIGATIONS &amp; DELINEATION PROJECTS

**Telecommunications Towers, Various Clients****Locations in NJ, DE, PA, WV, and MD**

Served as Lead Investigator to telecommunications carriers and tower construction companies for the siting of new towers. Duties included desktop analysis and site visit to delineate wetlands and provide a report of findings along with an assessment of local, state, and federal wetland regulations and permits required.

**Federal Aviation Administration - Atlantic City International Airport, William J. Hughes Technical Center  
Atlantic City, Atlantic County, NJ**

Performed a delineation of freshwater wetlands and waters, including riparian zones, for a water main extension. The delineation included



an assessment of alternatives and permits required by the New Jersey Department of Environmental Protection (NJDEP) pursuant to the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A and the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13.

**New York City Economic Development Corporation – Wetland Delineations**

**Various Locations, New York City, NY**

Performed a delineation, characterization, and GPS location of wetlands in coastal settings at multiple locations in New York City to help the New York City Economic Development Corporation monitor wetland conditions and trends.

**Central Hudson Gas & Electric Corporation - La Grange Gas Expansion Project**

**Town of La Grange, Dutchess County, NY**

Performed a delineation of freshwater wetlands and waters regulated by the New York State Department of Environmental Conservation (NYSDEC) and/or the U.S. Army Corps of Engineers (USACE) for an approximate 3.5-mile proposed gas line.

**Central Hudson Gas & Electric Corporation – SM-Line Gas Reinforcement Project**

**Town of Carmel, Putnam County, NY**

Performed a delineation of freshwater wetlands and waters regulated by the NYSDEC and/or the USACE for an approximate 3.5-mile proposed gas main reinforcement project.

**Proposed Commercial Development**

**Township of East Windsor, Mercer County, NJ**

Performed vernal habitat survey and delineation to determine the extent of vernal habitats regulated by the NJDEP. The vernal habitat survey included a review of previously delineated wetlands for accuracy and assessment of each wetland area to determine which areas qualify as vernal habitats. A Letter of Interpretation (extension) application was prepared and submitted to the NJDEP along with a report of the vernal habitat survey results.

**Proposed Residential Development**

**Township of Plumsted, Ocean County, NJ**

Performed a delineation of freshwater wetlands and waters regulated by the New Jersey Department of Environmental Protection and the USACE for a 200+ acre property on which a residential development is proposed.

**Proposed Office Building for Delaware River Joint Toll Bridge Commission**

**Township of Lower Makefield, Bucks County, PA**

Performed a delineation of freshwater wetlands and waters regulated by the USACE for a 15-acre property and prepared and submitted to the USACE a request for a Jurisdictional Determination.

**PERMITTING & COMPLIANCE PROJECTS**

**Enterprise Products – Integrity Management Portfolio Support**

**Various Locations, NY**

Assisted Enterprise Products with environmental site reviews following integrity management surveys that revealed anomalies along its existing lines in New York State. Tasks included conducting a desktop review of identified dig locations, field investigation and delineation of wetlands/waters, identifying site access, and providing a summary of potential environmental permits that may be required from the USACE and the NYSDEC. Following desktop and field investigations, an environmental (wetlands) permit application was prepared and submitted to the appropriate agency.





**Federal Aviation Administration - Atlantic City International Airport, William J. Hughes Technical Center  
Atlantic City, Atlantic County, NJ**

Prepared an Environmental Assessment (EA) pursuant to the National Environmental Policy Act for improvements to the Airport Research Technology Center at the William J. Hughes Technical Center. The EA led to a Finding of No Significant Impact.

**The Point at Sayreville (Former National Lead Site)  
Borough of Sayreville, Middlesex County, NJ**

Assisted in obtaining USACE and NJDEP permits for freshwater wetland impacts associated with the largest brownfield redevelopment project in the history of the State of New Jersey. The project consists of a mixed-use waterfront development with more than 2.8 miles of waterfront; 3,000,000 SF of retail space; 1,250 hotel rooms; a government complex; 2,000 residential units; an entertainment complex; marina; and multiple digital media towers.

**Atlantic County Priority Repairs to Mill Road Bridge  
City of Absecon, Atlantic County, NJ**

Served as Environmental Consultant to the County of Atlantic, Division of Engineering to provide freshwater and coastal wetland permitting services for priority repairs to Mill Road Bridge (A-04) over Absecon Creek in the City of Absecon. Services included a delineation of wetlands, plan review for environmental compliance issues, and obtaining a Waterfront Development Permit and Tidelands License from the NJDEP and a Nationwide Permit from the USACE.

**Middlesex County Improvements to Stelton Road/Plainfield Avenue  
Townships of Edison and Piscataway, Middlesex County, NJ**

Assisted in securing a NJDEP Flood Hazard Area Individual Permit and obtained NJDEP Freshwater Wetlands General Permits and a Special Activity Transition Area Waiver for over one-mile of roadway, intersection, and drainage improvements to Stelton Road/Plainfield Avenue (County Route 529).

**Bayside Residential Development  
Town of Marlborough, Ulster County, New York**

Delineated freshwater wetlands on this 25-acre site and obtained a Jurisdictional Determination from the U.S. Army Corps of Engineers. Assisted in the preparation of a Draft and Final Environmental Impact Statement to satisfy State Environmental Quality Review Act requirements.

**Orange County Towers  
Various Locations, Orange County, NY**

Served as Project Lead for ecological services for the siting of six new emergency radio towers. Duties included freshwater wetland assessment and delineation, National Environmental Policy Act screening, and Section 7 Endangered Species Act consultation with the USFWS and NYSDEC which involved habitat assessments for Dwarf wedgemussel, Small whorled pogonia, Indiana bat, Northern long-eared bat, Bog turtle, and Timber rattlesnake.

**Sanitary Sewer Pump Station Upgrades and Bulkhead Reconstruction  
Township of Ocean, Monmouth County, NJ**

Obtained NJDEP Coastal General Permit 14 for the reconstruction of over 500 ft of bulkhead and Coastal General Permit 24 for the legalization of filled tidelands on a tract of land containing a sanitary sewer pump station adjacent to a former tidal water. Also obtained exemption from coastal permitting requirements for the reconstruction of the sanitary sewer pump station.



## THREATENED &amp; ENDANGERED SPECIES

**NJ State Highway Route 23 Reconstruction – Bog Turtle and Wood Turtle Construction Monitoring  
Borough of Sussex and Township of Wantage, Sussex County, NJ**

Provided pre-construction survey and construction monitoring services for bog turtle and wood turtle for an approximate one-mile long highway reconstruction and bridge replacement project to ensure turtle protective measures are functional in accordance with freshwater wetland and flood hazard area permit conditions.

**Rolling Knolls Superfund Site Monitoring Wells – Bog Turtle Construction Monitoring  
Township of Chatham, Morris County, NJ**

Provided pre-construction survey and monitoring services for the installation of monitoring wells within freshwater wetlands that were determined to be suitable habitat for bog turtle in accordance with freshwater wetland permit conditions.

**Hercules Incorporated, Kenvil Works Facility – Bog Turtle Phase 1 Survey and Construction Monitoring  
Township of Roxbury, Morris County, NJ**

Provided bog turtle habitat surveying and construction monitoring services on an approximate 1,000-acre site. Services included a site-wide Phase 1 survey for bog turtle followed by construction monitoring for subsurface exploration activities located adjacent to a potential bog turtle habitat.

**Six Flags Great Adventure Proposed Solar Farm - Mist Net Survey  
Township of Jackson, Ocean County, NJ**

Served as Lead Investigator for a summer mist net survey to detect the presence or probable absence of the Federally-threatened Northern long-eared bat on an approximate 100-acre site proposed for a solar facility.

**Honeywell Headquarters Proposed Redevelopment – Combined Acoustic and Mist Net Survey  
Township of Morris, Morris County, NJ**

Served as Project Manager and Lead Investigator for a combined acoustic and mist-net survey to detect the presence or probable absence of Indiana bat and Northern long-eared bat for a proposed redevelopment project on the Honeywell headquarters property.

**Burlington County Route 541 and Hancock Road – Phase 1 Bog Turtle Survey  
Township of Burlington, Burlington County, NJ**

Performed a Phase 1 bog turtle survey for a roadway and intersection improvement project at Burlington County Route 541 and Hancock Road.

**Project Mustang - Phase 1 Bog Turtle Survey  
City of Bethlehem, Northampton County, PA**

Performed a Phase 1 bog turtle survey in response to the Pennsylvania Natural Diversity Index for an approximate 30-acre site on which a commercial development is proposed.

**New Jersey Division of Fish and Wildlife – Phase 2 Bog Turtle Surveys  
Multiple Sites in Burlington County, NJ and Sussex County, NJ**

Performed contract bog turtle surveys for the New Jersey Division of Fish and Wildlife using Phase 2 survey techniques.

## PUBLICATIONS

*Vernal Pools: Look Before You Leap. Mid-Atlantic Real Estate Journal Spring Preview; 2010.*



## SPEAKING ENGAGEMENTS

New Jersey Chapter of The Wildlife Society-Spring Meeting. NJ Division of Fish and Wildlife Assunpink Conservation Center, Upper Freehold, New Jersey. *Surviving Salt: Impact of Road De-icers on New Jersey Amphibian Species*; 2013.

New York State Wetlands Forum 2013 Annual Conference and Meeting. Fort William Henry Hotel and Conference Center, Lake George, New York. *Behavioral Aversion of Northern Gray Treefrogs (Hyla versicolor) to Road Salts*.

Central Hudson Gas and Electric. Long Term Vegetation Management Training Program. Central Hudson Gas and Electric Training Center, Rifton, New York. *Regulatory Requirements for Vegetation Management*; annually presented 2013 through 2017.

Society of Wetland Scientists Mid-Atlantic Chapter 2014 Conference "Wetland Mitigation, Restoration, and Ecology" Days Inn Penn State, State College, Pennsylvania. *Recognizing Opportunities for Restoring Freshwater Tidal Marshes – Mill Brook Pond Restoration, Highland Park, New Jersey*.

Pulte Homes, Basking Ridge, New Jersey. *The Path to Land Development in New Jersey*.

Maser Consulting P.A., Red Bank, New Jersey. *Freshwater Wetland Rules and Regulations in New Jersey*.

## CONTINUING EDUCATION &amp; WORKSHOPS

*FERC Environmental Review & Compliance for Natural Gas Facilities*  
*Southern Gas Association Technical Conference on Environmental Permitting and Construction*  
*Southern Gas Association Environmental, Safety & Health Training Conference*  
*Methodology for Delineating Wetlands*, Rutgers University.  
*Radon Measurement Proficiency Course*, Rutgers University.  
*Environmental Site Assessment for Commercial Real Estate*  
*T&E Species of Southern New Jersey*, Rutgers University.  
*T&E Species of Northern New Jersey*, Rutgers University.  
*Freshwater Wetland Construction Techniques*, Rutgers University.  
*Bat Conservation and Management Workshop*, Bat Conservation International.  
*Identification of Freshwater Wetland Sedges, Grasses & Rushes*  
*Basic Processes in Hydric Soils*, NC State University.  
*SonoBat Field Techniques Workshop*, Bat Conservation and Management.  
*Bat Acoustic Data Management*, Bat Survey Solutions.

