



## **Phase 1 Preliminary Assessment**

### **Vegetation and Wildlife**

#### **Seneca Compressed Air Energy Storage Project**

#### **New York State Electric and Gas**

**Town of Reading  
Schuyler County, New York**

**Environmental Resources Management  
399 Boylston Street  
Boston, MA 02116**



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## 1.0

### *VEGETATION AND WILDLIFE BACKGROUND*

This report presents a preliminary assessment of the terrestrial natural resources within the vicinity of the Seneca compressed air energy storage (CAES) Project and identifies potential impacts from the construction and operation of the Project on these resources. The proposed CAES Project will be a 130 to 180 MW compressed air energy storage plant that consists of an electrically driven compression cycle and a turbine expansion cycle that will produce electricity. The CAES plant is intended to provide sufficient storage to allow full operation during peak demand time periods in support of transmission system and market needs (approximately 10 hours per day). The CAES Project will be located west of Seneca Lake in Reading, Schuyler County, New York.

Terrestrial ecological resources are defined as native or naturalized plants and animals and the habitats in which they exist. The terrestrial ecological resources within the Project area have been preliminarily identified through a desktop review and an initial site walkover by an ERM scientist. The types of vegetation, wildlife, wildlife habitat, and wildlife travel corridors observed are discussed herein. Additionally, information available from the New York State Department of Environmental Conservation (NYSDEC) and the United States Fish and Wildlife Service (USFWS) has been reviewed for the presence of endangered or threatened species in the vicinity of the CAES Project area.

## 1.1

### *VEGETATION COMMUNITIES*

The CAES Project lies within the Zone A Appalachian Plateau A04 Finger Lake Highlands Ecological Zone in West-Central New York (NYSGIS, 1990; Figure 1). The dominant vegetation type historically was northern hardwood forest. However, agricultural clearing has left the region approximately 15 percent forested (USDA, 2010). The area can be characterized primarily as agricultural croplands interspersed with parcels of mixed deciduous and coniferous forest; emergent, forested, and scrub-shrub wetlands; hedgerows; and abandoned cropland. Photographs of the natural setting surrounding the proposed CAES Plant Facility Site, underground pipeline corridor to Seneca Lake and the overhead power line route to the substation off County Route 28 were taken during preliminary field reconnaissance on September 2, 2011 and are provided in Attachment 1, Photodocumentation.

## CAES Plant Site

The vegetation community on the proposed CAES plant site includes early successional species on a former agricultural field with one hedgerow. The field appears to no longer be actively managed for agriculture, based on the presence of small shrubs and the dominant herbaceous vegetation, including goldenrod (*Solidago* spp.), Queen Anne's lace (*Daucus carota*), and a variety of grasses. At least two emergent wetlands and a small pond are located within this area, as described in the separate Wetlands section of this Phase 1 project. Wetland species observed on the CAES plant site include rice cutgrass (*Leersia orzoides*), green bulrush (*Scirpus atrovirens*), soft rush (*Juncus effusus*), purple loosestrife (*Lythrum salicaria*), lurid sedge (*Carex lurida*), and water plantain (*Alisma* sp.). Hedgerow tree species typically include sugar maple (*Acer saccharum*), red maple (*Acer rubrum*), white ash (*Fraxinus americana*), shagbark hickory (*Carya ovata*), basswood (*Tilia americana*), boxelder (*Acer negundo*), black locust (*Robinia pseudoacacia*), and oak species (*Quercus* spp.).

Both herbaceous and shrub invasive species, including purple loosestrife, reed canarygrass (*Phalaris arundinacea*), honeysuckle shrubs (*Lonicera* sp.), and multiflora rose (*Rosa multiflora*) were noted in this field environment and are listed on the New York Interim Invasive Species Plant List. The abandoned field is bordered to the south and east by forested areas, as described in the following section and an operating vineyard occurs to the north (across State Route 14A). To the west, the field is separated from a nearby forested habitat by an active railroad corridor.

### *Proposed Underground Pipeline Route (and Pump House)*

The mixed deciduous and coniferous forest located to the south and southeast of the proposed CAES plant site extends along the proposed underground pipeline route. These forests are generally dominated by northern hardwood species, the historic dominant forest type in the region (USDA, 1993). Oaks (*Quercus* spp.), maples (*Acer* spp.), white ash, and eastern hemlock (*Tsuga canadensis*) are typical species in these forests. Successional growth species are interspersed throughout the wooded areas. There are occurrences of plantation species in the region including scotch pine (*Pinus sylvestris*) and red pine (*Pinus resinosa*), mixed with native species including trembling aspen (*Populus tremuloides*), grey birch (*Betula populifolia*), shagbark hickory, basswood, boxelder, black locust, and white pine (*Pinus strobus*).

The forest extends from the proposed CAES plant site east to Route 14, and also continues east from Route 14 to Seneca Lake. East of Route 14, the vegetation communities vary with a patchwork of open field and forested areas along the relatively steep slope that extends to Seneca Lake. Several intermittent and perennial streams cross through these forested and open field habitats, including a New York State Department of Conservation (NYSDEC) Class C stream that approximately parallels the proposed underground pipeline route between Route 14 and the proposed pump house location on Seneca Lake. Small pockets of pooled water and hydrophytic species such as cattail (*Typha* spp.) are scattered where the streams intersect existing unpaved access roads throughout a salt mining road network located between State Route 14 and Seneca Lake. Along the shore of Seneca Lake at the approximate location of the proposed underground water intake and discharge pipelines and the pump house, the vegetation community shifts from a narrow fringe of woody vines, small shrubs, and herbaceous plants to a maintained grass area that surrounds existing US Salt infrastructure. An assessment of the presence of submerged aquatic vegetation has not yet been conducted, but is recommended in the area where the water intake and wastewater discharge structures and associated pipelines are proposed within Seneca Lake.

#### *Proposed Overhead Power Line Route and Substation*

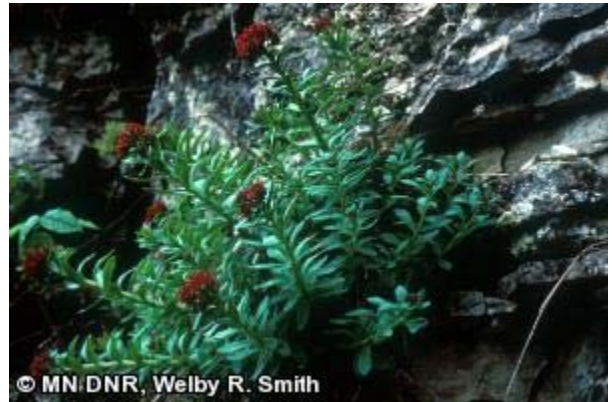
Similar to the proposed underground pipeline routes, the overhead power line route crosses through mixed deciduous and coniferous forest, which is bisected by an active railroad corridor west of the proposed CAES plant site. One small emergent wetland, dominated by sensitive fern (*Onoclea sensibilis*), is located along the aboveground power line route in the south, southwestern corner of the field containing the proposed CAES plant site. Vegetation in the forested area is similar to typical species composition for the region as described above. The proposed substation location consists of a thin band of maintained grasses along County Route 28 with a shrub and vine community extending west to the existing electric utility right-of-way.

#### **1.1.1** *Threatened and Endangered Species*

The NYSDEC Environmental Resource Mapper (Mapper) was used to determine if the CAES Project boundary intersected with any known locations of threatened and endangered (T&E) plant species. The results of this desktop review indicate no known occurrences of T&E plant species in the immediate vicinity of the Project's footprint. Thus, it is

unlikely that such species would occur in the vicinity of the project area. A letter requesting confirmation of this information was submitted to the New York State Natural Heritage Program and a written response was received (Attachment 2, Agency Correspondence). The New York State Natural Heritage Program response indicates that no rare or state-listed animals and plants, significant natural communities, or other significant habitats occur on or in the vicinity of the CAES Project. The only noted finding was one winter waterfowl concentration area, which is discussed below.

A review of the USFWS website identified Leedy's roseroot (*Rhodiola integrifolia* ssp. *leedyi*) as a threatened species in Schuyler County (USFWS, 2011). Two known occurrences of Leedy's Roseroot have been identified in New York State and they are both in Schuyler County. These locations are: 1) the Glenora Cliffs along the west shore of Seneca Lake and 2) a single plant located in Watkins Glen State Park.



Approximate locations of the Hamlet of Glenora and Watkins Glen State Park are depicted in the inset on Figure 1. The exact location of the Glenora Cliffs location was not identified in publicly available materials; however, the Hamlet of Glenora is located approximately 5 miles north of the proposed CAES plant site. Watkins Glen State Park is located approximately three miles south of the project footprint. Therefore, these two known populations do not intersect the Project footprint. These assumptions are supported by the letter from New York State Natural Heritage Program which identifies no plant species of concern in the vicinity of the CAES project.

## 1.2 WILDLIFE AND WILDLIFE HABITAT

A preliminary field reconnaissance was conducted on September 2, 2011 to view the general wildlife habitats present within the CAES Project footprint.

## *CAES Plant Site*

The wildlife habitats on and surrounding the CAES plant site can be described as open field bordered by forested habitat. Wildlife species that thrive in edge habitat are likely to be present at the CAES plant site. These species include white-tailed deer (*Odocoileus virginianus*), eastern cottontail (*Sylvilagus floridanus*), woodchuck (*Marmota monax*), raccoon (*Procyon lotor*), eastern wild turkey (*Meleagris gallopavo silvestris*), red fox (*Vulpes vulpes*), eastern chipmunk (*Tamias striatus*), grey squirrel (*Sciurus carolinensis*), red squirrel (*Tamiasciurus hudsonicus*), and numerous species of bats, moles, mice, rats, and shrews. Additionally, species of birds, insects, amphibians, and reptiles most likely utilize the project area for habitat periodically throughout the year.

Wildlife species known to occur in emergent wetlands and ponds include amphibians, including frogs and salamanders, as well as snakes, turtles, and a variety of invertebrates.

### *Proposed Underground Pipeline Route (and Pump House)*

Forest habitat extends from the proposed CAES plant site east to Route 14, and also continues east from Route 14 to Seneca Lake. East of Route 14, the environment consists of a patchwork of open field and forested areas along the relatively steep slope down to Seneca Lake. Several intermittent and perennial streams cross through these forested and open field habitats, including a mapped NYSDEC stream with a combination of bedrock and unconsolidated bed and banks that approximately parallel the proposed underground pipeline routes between Route 14 and the proposed pump house location on Seneca Lake. Forested areas provide valuable habitat to many animals commonly found in agricultural areas. Many wildlife species are dependent on forest communities for food and shelter, and streams are an important water source for wildlife. Annual mast crops such as acorns and beech nuts often supply wildlife with essential nutrients to survive the winter. The forest also provides a refuge for wildlife as protection from predation. The forest and open fields between Route 14 and Seneca Lake contain evidence of industrial uses, including overhead power lines, and abandoned aboveground pipelines that once supported the salt mining industry in this location. At the proposed pump house location, the habitat shifts to the shore of Seneca Lake, including the unconsolidated material along the lake bank.

Streams are also an integral part of the ecosystem in this region. Several tributaries to Seneca Lake are located in close proximity to the CAES Project site and the proposed linear corridors cross these streams in

multiple locations. Streams are addressed in more detail in the Water Quality report of this Phase 1 project.

The shore of Seneca Lake in the vicinity of the proposed pump house shows evidence of prior disturbance, with the existence of several structures located on the immediate shore of the lake. The shore of the lake provides habitat for waterfowl. The proposed water intake and wastewater discharge structures will be located in the lake bed of Seneca Lake that is a lacustrine habitat known to contain a variety of aquatic species, which are described in the separate Water Resources report of the Phase 1 project.

#### *Overhead Power Line Route and Substation*

The forested area along the overhead power line route is bisected by an active railroad corridor that runs approximately parallel to County Route 28. Further west, the habitat is similar to the forested habitat description and wildlife usage discussed above for the underground pipeline route. The proposed substation is located in an area of shrub land. Shrub lands in this region are generally comprised of former agricultural fields where crops are no longer planted. These areas commonly provide the densest vegetation growth and cover due to the lack of shade from a canopy. This provides habitat required by many species of ground- or low-bush nesting birds. Additionally, many of the common vegetative shrub species produce fruit, providing foraging opportunities for many wildlife species. This habitat is typical within electric utility right-of-way corridors, one of which is located to the west immediately adjacent to the substation location.

#### *Wildlife Corridors*

Hedgerows in agricultural areas provide habitat for many wildlife species, as well as creating a connective corridor between wooded lots. They provide important pathways for the movement of wildlife species, allowing them to reach isolated forest patches across a matrix of open agricultural fields. Streams with undeveloped riparian buffers also act as corridors for the movement of wildlife. Narrow forested areas linking larger forested areas also function as wildlife corridors. The CAES Project footprint intersects very few hedgerows, but does cross larger parcels of forested area and several streams with vegetated riparian areas. The species anticipated to utilize these areas are common wildlife species typical in the region. Larger expanses of forested and riparian areas are prevalent throughout the general vicinity of the CAES Project.



### 1.2.1

#### *Threatened and Endangered Species*

The NYSDEC Mapper was utilized to identify state-listed threatened or endangered (T&E) animal species that have potential to occur near the CAES Project site. The Mapper tool identified no T&E animal species within the Project's vicinity. A separate listing of the Endangered, Threatened and Special Concern Fish and Wildlife Species of New York State and their habitat ranges, identifies Schuyler County within the range of the following four avian and bat species:

- short-eared owl (*Asio flammeus*)
- Henslow's sparrow (*Ammodramus henslowii*)
- northern harrier (*Circus cyaneus*)
- Indiana bat (*Myotis sodalis*)

Based on the correspondence received from the New York State Natural Heritage Program, a Seneca Lake waterfowl winter concentration area is the only rare or state-listed animals, significant natural communities, or other significant habitats that occurs on or in the vicinity of the CAES Project (Attachment 2). This area has a New York State ranking of S3S4, Vulnerable. These rankings are defined as follows:

- S3 Ranking = Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.
- S4 Ranking = Apparently secure in New York State.

Based on the information provided by the Natural Heritage Program, the four protected species listed above with habitat ranges in Schuyler County are not anticipated to be within the vicinity of the CAES Project.

A review of the USFWS database of federally listed endangered and threatened species and candidate species revealed no federally protected animal species known to occur within Schuyler County (Attachment 2).

## 2.0 *POTENTIAL IMPACTS*

Impacts to vegetation and wildlife from construction and operation of the CAES Project will vary across the Project area, depending on the vegetation and wildlife communities present combined with the type of duration of activity proposed. A preliminary assessment of anticipated impacts to vegetation and wildlife is presented below.

### 2.1 *VEGETATION*

#### *CAES Plant Site*

The open-field habitat on the parcel where the CAES plant will be located will be impacted by the clearing of vegetation and replacement with the industrial facility and resultant impervious surfaces. In addition to the open field habitat, a small wetland and pond area will also be converted to a developed industrial environment, resulting in the loss of those vegetation communities. Given the relatively small footprint (~20 acres) of the CAES plant as compared to the surrounding natural environments within the Finger Lakes Highland Ecological Zone, these impacts to open field and wetland vegetation are anticipated to be minor.

#### *Underground Pipeline Route, Overhead Power Line and Pump House*

The linear corridors where underground pipelines and overhead power lines will be installed will result in clearing vegetation in areas of mixed deciduous and coniferous forest, open fields, and riparian areas. Most of the linear corridor is forested areas; therefore, construction will result in the removal of the tree canopy and successional replacement with shrub and herbaceous habitats. Removal of the overstory will create new space and light conditions that will foster growth of different types of vegetation than existing conditions. Existing seed banks in the soil are likely to provide a source of vegetation following construction. However, additional efforts may be required to revegetate disturbed areas following construction (see Mitigation section below).

One of the key concerns when disturbing areas of land and allowing portions to re-grow is the introduction or increased occurrence of invasive species. These species tend to favor recently disturbed soil and could thrive along the linear corridors where vegetation is restored following construction. As noted above, invasive plant species were observed in the open field area. The presence of invasive species should be documented

prior to construction and, if found to be prevalent, an invasive species management plan may be required to accompany permit applications to state and federal agencies.

To comply with Section 7 of the federal Endangered Species Act, field reconnaissance by an experienced biologist is required in Phase 2 of the CAES Project to determine if the area to be disturbed along the western shore of Seneca Lake for the installation of underground pipelines, overhead power lines, and the pump house is suitable habitat for the threatened Leedy's roseroot. If no habitat is found within the footprint of the area to be disturbed, then no impacts to this protected species are anticipated to result from the Project.

As described in the Air Quality report of this Phase 1 project, the CAES Project is located in an area that is attaining US Environmental Protection Agency's primary and secondary National Ambient Air Quality Standards (NAAQS) for all the standards with the exception of ozone. The State of New York is in the ozone transport region (OTR) and is classified as a moderate nonattainment area for ozone. The "primary" standard has been established to protect the public, including children, people with asthma, and the elderly from health risk. The "secondary" standard was established to prevent unacceptable effects on public welfare, e.g., unacceptable damage to crops and vegetation, buildings and property, and ecosystems. The construction phase of this Project is anticipated to result in short-term impacts to local air quality due to construction vehicle and equipment fuel combustion emissions as well as the generation of dust from earth moving and vehicle activities. These impacts are anticipated to be minor and will cease upon completion of the construction phase with no long-term effects. During the operation and maintenance phase of the CAES Project, air emissions are not anticipated to cause a local or regional exceedance of the applicable primary and secondary NAAQS and also not contribute to further degradation of the moderate nonattainment status for ozone for the area. Therefore, no adverse impacts to vegetation are anticipated to result from Project-related air emissions at or in close proximity to the Project site.

## 2.2 *WILDLIFE AND HABITATS*

Wildlife may be subject to some disturbance and displacement during the construction phase of the CAES Project. Temporary impacts that would result from the construction of the CAES Project include:

- elevated noise levels in the vicinity of construction activities;
- temporary disturbance of natural habitats;
- wildlife mortality due to interactions between animals and machinery during construction; and
- temporary displacement of wildlife from habitats within and adjacent to the work zones.

These impacts are anticipated to be minor and will cease upon completion of the project. Due to the lack of unique habitat or protected species over the majority of the CAES Project area, with the exception of Seneca Lake, the common wildlife that currently uses the site is anticipated to be adaptable and utilize existing adjacent habitats. An estimate of the area of impact within Seneca Lake and its shores has not yet been prepared and will be based on the final design of the intake and discharge pipes and the intake structure itself. However, given the scale of the Project and the likely area to be impacted during the construction phase of the Project, the area is anticipated to be extremely small compared to the overall surface area (67.7 square miles) of Seneca Lake and is not expected to result in a significant adverse environmental impact to the waterfowl concentration area. The operation of the underwater structures will require specific design features to avoid impacts to waterfowl and their prey during the water withdrawal and wastewater discharge. Similarly, the wastewater discharged from the Facility will be required to comply with the NYS surface water quality standards to avoid adverse impacts to Seneca Lake water quality, which is directly related to the aquatic and terrestrial wildlife usage of the Lake. By instituting good engineering design practices, the long-term operation and maintenance of the underwater structures are not anticipated to adversely impact winter waterfowl usage of Seneca Lake.

Removal of the tree canopy within existing forested areas will result in a loss of habitat for species that utilize tall trees as foraging, perching, or nesting habitat. The new shrub and herbaceous habitat that will be created in these new open areas will provide new habitat for species that require and utilize non-forested habitat. Given the abundance and broad range of forested and open field habitats that exist nearby the CAES Project site that will not be disturbed, impacts to wildlife and wildlife corridors are anticipated to be minor.

Based on the response from the Natural Heritage Program, no detailed assessment of the four protected wildlife species with ranges that extend into Schuyler County appears to be required, because none of these species is known to occur in the vicinity of the CAES Project area.

As described in the Air Quality report of this Phase 1 project, the CAES Project is located in an area that is attaining US Environmental Protection Agency's primary and secondary National Ambient Air Quality Standards (NAAQS) for all the standards with the exception of ozone. As noted above, the "secondary" NAAQS were established to prevent unacceptable effects on public welfare, e.g., unacceptable damage to crops and vegetation, buildings and property, and ecosystems. The construction phase of this Project is anticipated to result in short-term impacts to local air quality due to construction vehicle and equipment fuel combustion emissions as well as the generation of dust from earth moving and vehicle activities. These impacts are anticipated to be minor and will cease upon completion of the construction phase with no long-term effects. During the operation and maintenance phase of the CAES Project, air emissions are not anticipated to cause a local or regional exceedance of the applicable primary and secondary NAAQS and also not contribute to further degradation of the moderate nonattainment status for ozone for the area. Therefore, no adverse impacts to wildlife are anticipated to result from Project-related air emissions at or in close proximity to the Project site.

## 2.2 *MITIGATION MEASURES*

Mitigation measures are anticipated to be required during both the construction phase and the post-construction phase of the Project to prevent significant impacts to vegetation and wildlife.

During the construction phase, mitigation is anticipated to include the following actions:

- implementation of standard best management practices during construction;
- minimization of construction clearances and work zones to the maximum extent practicable;
- erosion prevention and sediment control in areas of disturbed soils to prevent migration of sediments to protected resource areas (streams, wetlands, Seneca Lake);
- water management during all stream crossings and work in Seneca Lake;
- revegetation of all disturbed areas;
- dust control;
- prevention of the spread of invasive species with machinery by inspecting and cleaning as needed before moving from an area with a known invasive species population

During the post-construction phase, mitigation will likely include the following actions:

- invasive species inspection and control;
- slope stabilization inspections to prevent erosion and migration of sediments to protected resource areas
- operation of submerged water intake and wastewater discharge structures will need to avoid impacts to waterfowl and their prey.

This list of mitigation measures is not exhaustive, but is representative of what would be expected for a project of this scale. Permitting agencies will need to be consulted and may require additional mitigation measures.

New York State Geographic Information Systems (NYSGIS), 1990. GIS Data set: Boundaries of the Ecological Regions of New York State, taken from Will et. al. (1982) and Dickinson (1983).

<http://www.nysgis.state.ny.us/gisdata/inventories/details.cfm?DSID=1131>

U.S. Department of Agriculture (USDA), 2010. National Agricultural Statistics Service - 2010 New York Cropland Data Layer.

USDA, 1993. *American Forests, A History of Resiliency and Recovery*. Forest Service, FS-540. Douglas W. MacCleery. In cooperation with Forest History Society, Durham, North Carolina.

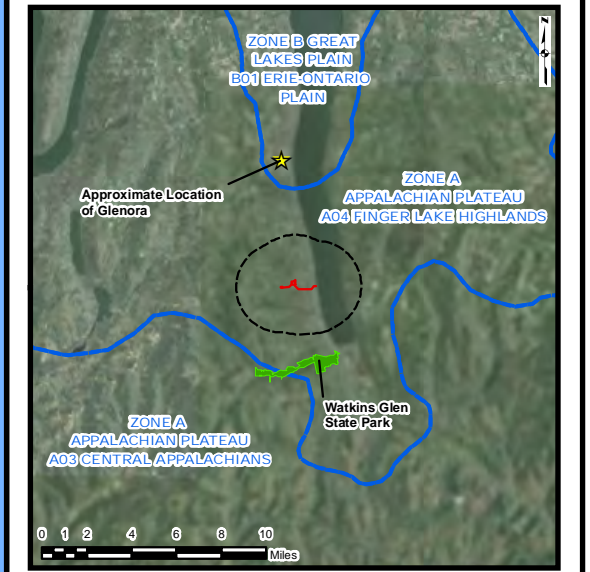
U.S. Fish & Wildlife Service (USFWS), 2011. Federally Listed Endangered and Threatened Species and Candidate Species in New York (By County). Revised June 1.

## *Figures*





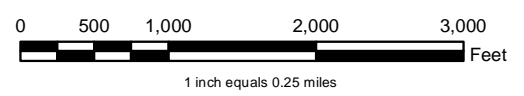
**SENECA  
LAKE**



- Legend**
- Ecological Zones
  - 2 Mile Buffer of Project Area
  - Approximate Site Location
  - Watkins Glen State Park
  - ★ Glenora - Approximate Location
  - Approximate Digitized Wetlands**
  - Potential Wetlands Observed During Field Reconnaissance
  - Schuyler County Wetlands**
  - DEC Wetlands
  - Wetlands (NWI)**
  - Freshwater Emergent Wetland
  - Freshwater Pond
  - Lake
  - NYS DEC - Stream**
  - Classification - C
  - 2010 TIGER / Line**
  - Roads

**SOURCE:**  
Ecological Zones - New York Department of Environmental Conservation (NYDEC). Boundaries of the Ecological Regions of New York State. Taken from Will et. al. (1982) and Dickinson (1983)

**NOTE:**  
The wetlands noted on this figure are a preliminary analysis for planning purposes only. No formal wetland delineation has been conducted



SOURCE: Aerial Imagery - ESRI World Imagery  
Reproduced under License with ArcGIS 10

**Figure 1: Terrestrial Ecological Zones**  
NYSEG  
Seneca Compressed Air Energy Storage (CAES) Project  
Town of Reading  
Schuyler County, NY



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*Attachment 1*  
*Photo Documentation*

**PHOTODOCUMENTATION - September 02, 2011**  
**Compressed Air Energy Storage (CAES) Project - Reading, NY**  
**Page 1 of 3**



Facing South (from Route 14A) across the open-field environment along the eastern side of the proposed CAES Plant Site.



Facing Southeast in the mixed forest along the proposed underground pipeline route between the proposed CAES plant facility and State Route 14.

**PHOTODOCUMENTATION - September 02, 2011**  
**Compressed Air Energy Storage (CAES) Project - Reading, NY**  
**Page 2 of 3**



Facing East across the mixed forest along the underground pipeline route between State Route 14 and Seneca Lake.



Facing Northwest across the Seneca Lake unconsolidated shore habitat with a fringe of woody vines and shrubs where the underground intake and discharge pipeline route are proposed.

**PHOTODOCUMENTATION - September 02, 2011**  
**Compressed Air Energy Storage (CAES) Project**  
**Reading, NY**  
**Page 3 of 3**



Facing East through the deciduous forest toward the proposed overhead power line route between the railroad corridor and County Route 28.



Facing Southwest across the maintained grasses to the shrub area where the substation is proposed, with existing electric right-of-way in the distance.

*Attachment 2*  
*Agency Correspondence*

**ERM**  
5788 Widewaters Parkway  
DeWitt, New York 13214  
(315) 445-2554  
(315) 445-2543 Fax  
www.erm.com

23 September 2011

New York Department of Environmental Conservation  
New York Natural Heritage Program Information Services  
625 Broadway  
Albany, NY 12233

RE: Protected Species Screening

Dear Sir or Madam:

Environmental Resources Management (ERM) is gathering data related to three locations off State Route 14A and State Route 28 in the Town of Reading, Schuyler County, New York (see enclosed map). As shown on the attached figure, the site is located west of Seneca Lake and to the north of Watkins Glen.

The purpose of this letter is to solicit information from the New York Natural Heritage Program concerning the occurrence of plants and wildlife and any endangered, threatened, proposed, or candidate species or their critical habitats on or in the vicinity of the site. If there are any occurrences, ERM requests a list of federal, state and regional protected species, or proposed species, or critical habitats and wildlife areas known or suspected to be on or in the vicinity of the project area.

Please send all correspondences concerning this matter to:

Jarrold Hughes  
Environmental Resources Management  
5788 Widewaters Parkway  
DeWitt, New York 13214

If you have any question regarding this matter, please contact me at 315-461-7397.

Sincerely,



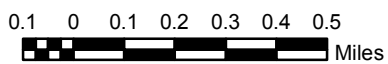
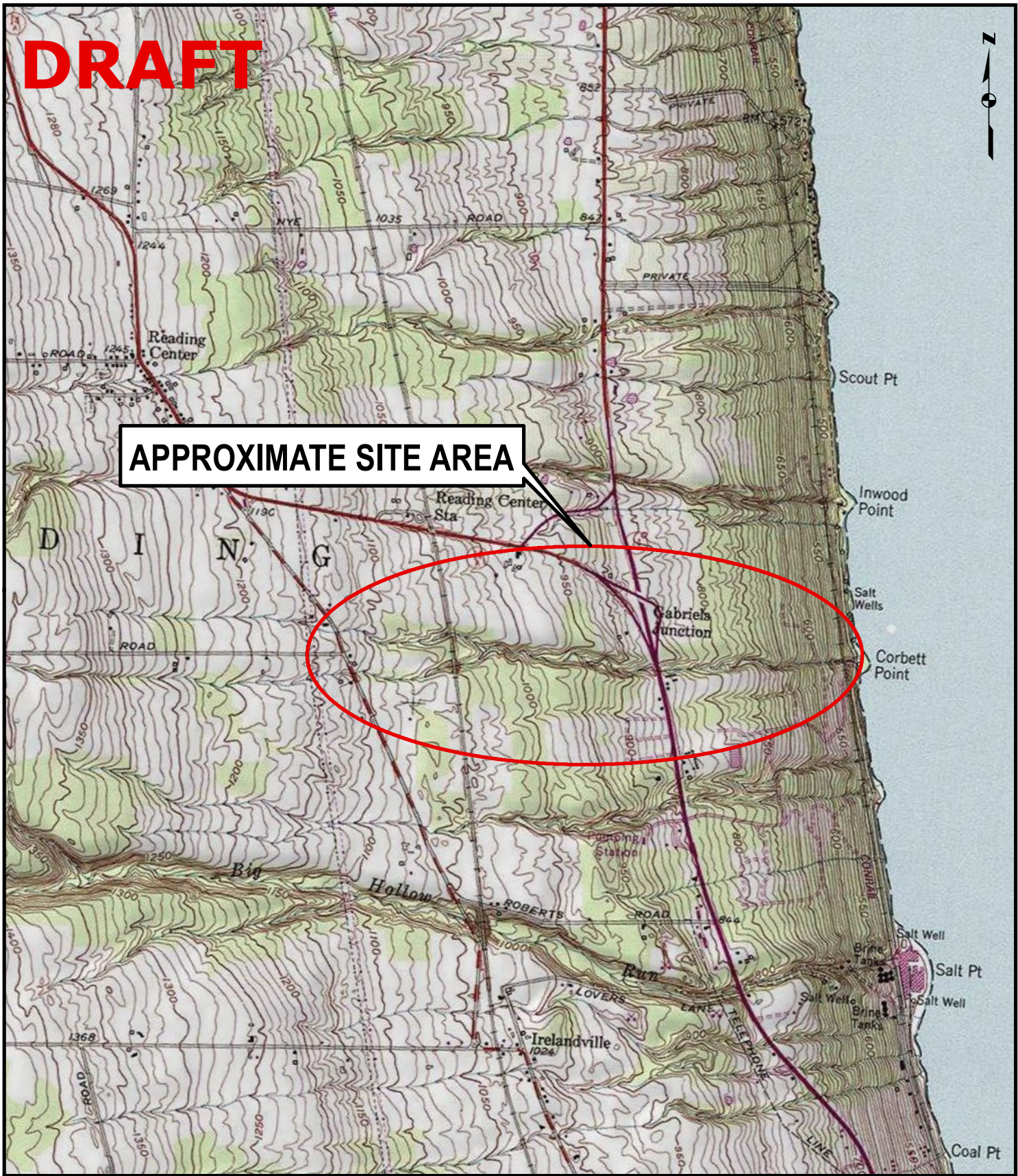
Jarrold Hughes  
*Project Scientist*

enclosure: Site Location Map

**DRAFT**



**APPROXIMATE SITE AREA**



1:24,000

**Figure 1 - Site Locus Map**

**SOURCE**  
USGS scanned topographic quad maps provided  
by National Geographic Society (© 2011).

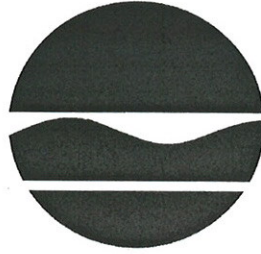
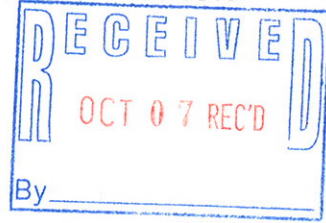
Town of Reading  
Schuylers County, NY





**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**Division of Fish, Wildlife & Marine Resources**  
625 Broadway, 5<sup>th</sup> Floor, Albany, New York 12233-4757  
**Phone:** (518) 402-8935 • **Fax:** (518) 402-8925  
**Website:** [www.dec.ny.gov](http://www.dec.ny.gov)



**Joe Martens**  
Commissioner

October 5, 2011

Jarrold Hughes  
ERM  
5788 Widewaters Pkwy  
De Witt, NY 13214

Dear Mr. Hughes:

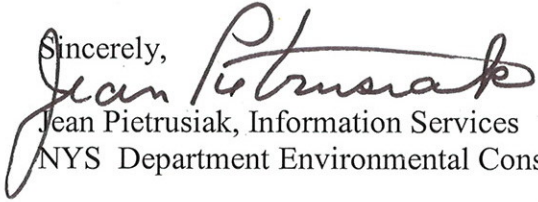
In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for the proposed Energy Facility Utilizing Compressed Air, site as indicated on the map you provided, located in the Town of Reading, Schuyler County.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

The enclosed report may be included in documents that will be available to the public. However, any enclosed maps displaying locations of rare species are considered sensitive information, and are intended only for the internal use of the recipient; they should not be included in any document that will be made available to the public, without permission from the New York Natural Heritage Program.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at [www.dec.ny.gov/about/39381.ht](http://www.dec.ny.gov/about/39381.ht) ml.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,  
  
Jean Pietrusiak, Information Services  
NYS Department Environmental Conservation

Enc.  
cc: Region 8

# 982

## Natural Heritage Report on Rare Species and Ecological Communities



NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor,  
Albany, NY 12233-4757  
(518) 402-8935

~The information in this report includes only records entered into the NY Natural Heritage databases as of the date of the report. This report is not a definitive statement on the presence or absence of all rare species or significant natural communities at or in the vicinity of this site.

~Refer to the User's Guide for explanations of codes, ranks and fields.

~Location maps for certain species and communities may not be provided 1) if the species is vulnerable to disturbance, 2) if the location and/or extent is not precisely known, 3) if the location and/or extent is too large to display, and/or 4) if the animal is listed as Endangered or Threatened by New York State.

## Natural Heritage Report on Rare Species and Ecological Communities



### OTHER

#### Waterfowl Winter Concentration Area

**NY Legal Status:** Unlisted

**NYS Rank:** S3S4 - Vulnerable

Office Use  
5657

**Federal Listing:**

**Global Rank:** GNR - Not ranked

**Last Report:** 1994-01-21

**EO Rank:** Excellent

**County:** Ontario, Schuyler, Seneca, Yates

**Town:** Benton, Dix, Fayette, Geneva - City, Geneva - Town, Hector, Lodi, Milo, Ovid, Reading, Romulus, St

**Location:** Seneca Lake

**General Quality and Habitat:** A long and narrow inland lake of glacial origin, with a mean depth of 291 ft.

1 Records Processed

More detailed information about many of the rare and listed animals and plants in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at [www.acris.nynhp.org](http://www.acris.nynhp.org), from NatureServe Explorer at <http://www.natureserve.org/explorer>, from NYSDEC at <http://www.dec.ny.gov/animals/7494.html> (for animals), and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

More detailed information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at [www.acris.nynhp.org](http://www.acris.nynhp.org). For descriptions of all community types, go to <http://www.dec.ny.gov/animals/29384.html> and click on Draft Ecological Communities of New York State.

**Schuyler County****Federally Listed Endangered and Threatened Species and Candidate Species**

This list represents the best available information regarding known or likely County occurrences of Federally-listed and candidate species and is subject to change as new information becomes available.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Leedy's roseroot	<i>Rhodiola integrifolia</i> ssp. <i>leedyi</i> (= <i>Sedum integrifolium</i> ssp. <i>l.</i> )	T

Status Codes: E=Endangered, T=Threatened, P=Proposed, C=Candidate, D=Delisted.

Information current as of: 10/15/2011