GREENIDGE GENERATION
590 Plant Road, PO Box 187
Dresden, NY 14441
315-536-2359
www.greenidge.com

March 18, 2022

United States Army Corps of Engineers
Buffalo District
ATTN: Regulatory Branch
1776 Niagara Street
Buffalo, NY 14207

RE: Joint Application for Greenidge Generation

Dear Sir or Madam:

Greenidge Generation (Greenidge) is submitting a Joint Application Form and package for a Nationwide Permit (NWP) to the United States Army Corps of Engineers (USACE) for the installation of wedgewire intake screens at the cooling water intake structure in Seneca Lake and the simultaneous replacement of the pipe support system.

The reason for this project is twofold. First, the New York State Department of Conservation (NYSDEC) has determined that Best Technology Available for the cooling water intake includes use of 0.5 mm slot width wedgewire screens. The existing offshore intake structure must be rebuilt to accommodate the new screens. Second, the wooden pilings and structure that supports the 7-ft diameter intake pipe above the lake surface needs to be repaired. The proposed repairs to the structure include driving new steel pilings into the lake bottom to support the pipe for continued use. We believe the project would be covered under Nationwide Permit 3.

Copies of the application package for this project are also being sent to the NYSDEC, New York State Office of General Services (OGS), as well as the United States Fish & Wildlife Service (USFWS).

The Greenidge application package for this project includes the following items for USACE review and approval:

- USACE/NYSDEC Joint Application Package
- NYSDEC Structural Archeological Assessment Form
- NYSDEC State Environmental Quality Review Short Environmental Assessment Form
- USFWS Consultation Letter
- Analysis of effects on wetlands
- Supporting Photographs, Figures, and Drawings

If you have any questions on this application package, please do not hesitate to reach out to the consultant that prepared the application, John Young (814) 278-0482 - jyoung@asaac.com), or to Tim Panaski (607) 796-2112 - tpanaski@greenidge.com).

Sincerely,

DocuSigned by:
Dale L Irwin
036819DC6BBC49D...

Dale Irwin
President
Greenidge Generation LLC

Enclosures:

GREENIDGE
GENERATION
590 Plant Road, PO Box 187
Dresden, NY 14441
315-536-2359
www.greenidge.com

March 18, 2022

Chris Hogan
Environmental Permits
New York Department of Environmental Conservation
625 Broadway
Albany, NY 12233-0001

RE: Joint Application for Greenidge Generation

Dear Mr. Hogan:

Greenidge Generation (Greenidge) is submitting a Joint Application Form and package for a Nationwide Permit (NWP) to the United States Army Corps of Engineers (USACE) for the installation of wedgewire intake screens at the cooling water intake structure in Seneca Lake and the simultaneous replacement of the pipe support system.

The reason for this project is twofold. First, the New York State Department of Conservation (NYSDEC) has determined that Best Technology Available for the cooling water intake includes use of 0.5 mm slot width wedgewire screens. The existing offshore intake structure must be rebuilt to accommodate the new screens. Second, the wooden pilings and structure that supports the 7-ft diameter intake pipe above the lake surface needs to be repaired. The proposed repairs to the structure include driving new steel pilings into the lake bottom to support the pipe for continued use. We believe the project would be covered under Nationwide Permit 3.

Copies of the application package for this repair-replacement project are also being sent to the USACE, New York State Office of General Services (OGS), as well as the United States Fish & Wildlife Service (USFWS). We believe the USACE should approve this project under Nationwide Permit 3 (maintenance), and that conditions listed in Section H. NYSDEC General Water Quality Certification Conditions applicable to all NWPs will be met.

The Greenidge application package for this project includes the following items for review and approval:

- USACE/NYSDEC Joint Application Package
- NYSDEC Structural Archeological Assessment Form
- NYSDEC State Environmental Quality Review Short Environmental Assessment Form
- USFWS Consultation Letter
- Analysis of effects on wetlands
- Supporting Photographs, Figures, and Drawings

If you have any questions on this application package, please do not hesitate to reach out to the consultant that prepared the application, John Young (814) 278-0482 - jyoung@asaac.com), or to Tim Panaski (607)796-2112 tpanaski@greenidge.com).

Sincerely,

DocuSigned by:
Dale L Irwin
036819DC6BBC49D...

Dale Irwin
President
Greenidge Generation LLC

Enclosures:

GREENIDGE GENERATION
590 Plant Road, PO Box 187
Dresden, NY 14441
315-536-2359
www.greenidge.com

March 18, 2022

New York State Office of General Services
Bureau of Land Management
39th Floor, Corning Tower
Empire State Plaza
Albany, NY 12242

RE: Joint Application for Greenidge Generation

Dear Sir or Madam:

Greenidge Generation (Greenidge) is submitting to the New York State Office of General Services a copy of the Joint Application Form and package for a Nationwide Permit (NWP) to the United States Army Corps of Engineers (USACE) for the installation of wedgewire intake screens at the cooling water intake structure in Seneca Lake and the simultaneous repair of the pipe support trestle. Our outside counsel (Barclay Damon LLC) has already contacted you concerning a lease for additional underwater lands that will be affected by the project. This package provides specific information about the activities that will be conducted during and after the project.

The reason for this project is twofold. First, the New York State Department of Conservation (NYSDEC) has determined that Best Technology Available (BTA) for the cooling water intake includes use of 0.5 mm slot width wedgewire screens. The existing offshore intake structure must be rebuilt to accommodate the new screens. Second, the wooden pilings and structure that supports the 7-ft diameter intake pipe above the lake surface needs to be repaired. The proposed repairs to the structure include driving new steel pilings into the lake bottom to support the pipe for continued use. We believe the project would be covered under Nationwide Permit 3.

Copies of the application package for this replacement-repair project are also being sent to the USACE, NYSDEC, as well as the United States Fish & Wildlife Service (USFWS).

The Greenidge application package for this project includes the following items for review and approval:

- USACE/NYSDEC Joint Application Package
- NYSDEC Structural Archeological Assessment Form
- NYSDEC State Environmental Quality Review Short Environmental Assessment Form
- USFWS Consultation Letter
- Analysis of effects on wetlands
- Supporting Photographs, Figures, and Drawings

If you have any questions on this application package, please do not hesitate to reach out to the consultant that prepared the application, John Young - 814 278-0482; jyoung@asaac.com, or to Tim Panaski (607) 796-2112; tpanaski@greenidge.com.

Sincerely,

DocuSigned by:
Dale L Irwin
036819DC6BBC49D...

Dale Irwin
President
Greenidge Generation LLC

Enclosures:

Greenidge Cylindrical Wedgewire Screen Project

Permit Application Package

March 18, 2022

Greenidge Generation: Cylindrical Wedgewire Screen Installation

Table of Contents

1. USACE/NYSDEC Joint Application
    a. Joint Application Form
    b. Project Description
    c. Supporting Narrative for Joint Application Form
    d. Wetlands Analysis
    e. Endangered Species List
    f. Biological Assessment
    g. Migratory Birds
2. NYSDEC SEQR State Environmental Quality Review
    a. Short Environmental Assessment Form
    b. Remediation Sites
    c. Structural Archaeological Assessment Form
    d. Archeological Sensitive Area
3. Project Drawings

4. Sediment Sampling Documents (Greenidge file 2)
    a. Sampling Permit Modification & Sampling Plan
    b. Sediment Analysis Report

1. USACE/NYSDEC Joint Application

1a. Joint Application Form

NEW YORK STATE | Department of Environmental Conservation | Office of General Services | Department of State

US Army Corps of Engineers

JOINT APPLICATION FORM

For Permits for activities activities affecting streams, waterways, waterbodies, wetlands, coastal areas, sources of water, and endangered and threatened species.

You must separately apply for and obtain Permits from each involved agency before starting work. Please read all instructions.

1. **Applications To:**

>NYS Department of Environmental Conservation ☑ Check here to confirm you sent this form to NYSDEC.

Check all permits that apply:

- ☐ Stream Disturbance
- ☑ Excavation and Fill in Navigable Waters
- ☑ Docks, Moorings or Platforms
- ☐ Dams and Impoundment Structures
- ☑ 401 Water Quality Certification
- ☐ Freshwater Wetlands
- ☐ Tidal Wetlands
- ☐ Wild, Scenic and Recreational Rivers
- ☐ Coastal Erosion Management
- ☐ Water Withdrawal
- ☐ Long Island Well
- ☐ Incidental Take of Endangered / Threatened Species

>US Army Corps of Engineers ☑ Check here to confirm you sent this form to USACE.

Check all permits that apply: ☑ Section 404 Clean Water Act ☑ Section 10 Rivers and Harbors Act

Is the project Federally funded? ☐ Yes ☑ No

If yes, name of Federal Agency:

General Permit Type(s), if known: NWP 3

Preconstruction Notification: ☑ Yes ☐ No

>NYS Office of General Services ☑ Check here to confirm you sent this form to NYSOGS.

Check all permits that apply:

- ☑ State Owned Lands Under Water
- ☐ Utility Easement (pipelines, conduits, cables, etc.)
- ☑ Docks, Moorings or Platforms

>NYS Department of State ☐ Check here to confirm you sent this form to NYSDOS.

Check if this applies: ☐ Coastal Consistency Concurrence

2. **Name of Applicant**

Greenidge Generation LLC

Taxpayer ID (if applicant is NOT an individual): 90-0911212

Mailing Address: 590 Plant Road

Post Office / City: Dresden

State: NY

Zip: 14441

Telephone: 315 536-2359

Email: dirwin@greenidge.com

Applicant Must be (check all that apply): ☑ Owner ☑ Operator ☐ Lessee

3. **Name of Property Owner (if different than Applicant)**

Mailing Address

Post Office / City

State

Zip

Telephone

Email

For Agency Use Only	Agency Application Number:

4. **Name of Contact / Agent**

John Young

Mailing Address	Post Office / City	State	Zip
ASA Analysis & Communication PO Box 303	Lemont	PA	16851

Telephone 814 278-0482 Email jyoung@asaac.com

5. **Project / Facility Name**

Greenidge Power Generating Station

Property Tax Map Section / Block / Lot Number: 40.03-1-1.111

Project Street Address, if applicable	Post Office / City	State	Zip
590 Plant Road	Dresden	NY	14441

Provide directions and distances to roads, intersections, bridges and bodies of water

The project site extends from the western shore of Seneca Lake approximatey 730 ft into the lake. At the shoreline, the project is approximately 2800 ft from the Kings Hill Road bridge over Keuka Lake Outlet, and 7359 ft from the acoustic platform.

☑ Town ☐ Village ☐ City

Town	County	Stream/Waterbody Name
Torrey	Yates	Seneca Lake

Project Location Coordinates: Enter Latitude and Longitude in degrees, minutes, seconds:

Latitude: 42.6829 ' " Longitude: -76.9420 ' "

6. **Project Description:** Provide the following information about your project. Continue each response and provide any additional information on other pages. **Attach plans on separate pages.**

a. Purpose of the proposed project:

Install wedgewire screens that are required to reduce entrainment and impingement of aquatic life under CWA Section 316(b) and 6NYCRR 704.5. Repair support trestle of the cooling water intake conduit.

b. Description of current site conditions:

The site is the west shore of Seneca Lake from the shoreline to approximately 730 ft from shore. Water depth varies from 0 to approximately 12 ft. The area is seasonally vegetated with submerged aquatic plants, primarily Myriophyllum.

c. Proposed site changes:

Permanent changes to the lake bottom are minimal and limited to dredging an 82 x 95 ft area around the existing intake structure and placement of 36 steel pilings along the existing trestle. See supplemental materials for narrative and relevant drawings.

d. Type of structures and fill materials to be installed, and quantity of materials to be used (e.g., square feet of coverage, cubic yards of fill material, structures below ordinary/mean high water, etc.):

The project will remove steel walls of existing intake structure and replace with precast concrete walls. A 30 cu yd roll-off with rock ballast will be installed temporarily and removed at end of the project. Additionaly 200 cu cy of coarse limestone will be placed, and 36 steel pilings will be placed along the existing trestle. See supplemental materials for narrative and relevant drawings.

e. Area of excavation or dredging, volume of material to be removed, location of dredged material placement:

Excavation area is 95 ft x 82 ft. Material to be removed is approximately 1100 cu yd. See supplemental materials for narrative and relevant drawings.

f. Is tree cutting or clearing proposed? ☐ Yes If Yes, explain below. ☑ No

Timing of the proposed cutting or clearing (month/year):

Number of trees to be cut: Acreage of trees to be cleared:

JOINT APPLICATION FORM – Continued. Submit this completed page as part of your Application.

g. Work methods and type of equipment to be used:

Standard pile driving, excavation, and construction methods will be used. Most of the dredging will be hydraulic with a small amount with a closed clam-shell bucket. See supplemental materials for narrative and relevant drawings.

h. Describe the planned sequence of activities:

See supplemental materials for narrative and relevant drawings.

i. Pollution control methods and other actions proposed to mitigate environmental impacts:

See supplemental materials for narrative and relevant drawings.

j. Erosion and silt control methods that will be used to prevent water quality impacts:

See supplemental materials for narrative and relevant drawings.

k. Alternatives considered to avoid regulated areas. If no feasible alternatives exist, explain how the project will minimize impacts:

No feasible alternatives exist for the project. Screen installation is necessary for SPDES permit compliance. See supplemental materials for narrative and relevant drawings.

l. Proposed use: ☐ Private ☐ Public ☑ Commercial

m. Proposed Start Date: 7/1/22 Estimated Completion Date: 10/1/2022

n. Has work begun on project? ☐ Yes If Yes, explain below. ☑ No

o. Will project occupy Federal, State, or Municipal Land? ☑ Yes If Yes, explain below. ☐ No

Yes. Applicant has initiated the legal process required to obtain permission to use these areas.

p. List any previous DEC, USACE, OGS or DOS Permit / Application numbers for activities at this location:

See supplemental materials for narrative.

q. Will this project require additional Federal, State, or Local authorizations, including zoning changes?

☑ Yes If Yes, list below. ☐ No

Authorization for use of underwater lands belonging to the State of New York.

JOINT APPLICATION FORM – Continued. Submit this completed page as part of your Application.

7. **Signatures.**
Applicant and Owner (If different) must sign the application.
Append additional pages of this Signature section if there are multiple Applicants, Owners or Contact/Agents.

I hereby affirm that information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief.

Permission to Inspect - I hereby consent to Agency inspection of the project site and adjacent property areas. Agency staff may enter the property without notice between 7:00 am and 7:00 pm, Monday - Friday. Inspection may occur without the owner, applicant or agent present. If the property is posted with "keep out" signs or fenced with an unlocked gate, Agency staff may still enter the property. Agency staff may take measurements, analyze site physical characteristics, take soil and vegetation samples, sketch and photograph the site. I understand that failure to give this consent may result in denial of the permit(s) sought by this application.

False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the NYS Penal Law. Further, the applicant accepts full responsibility for all damage, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and agrees to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from said project. In addition, Federal Law, 18 U.S.C., Section 1001 provides for a fine of not more than $10,000 or imprisonment for not more than 5 years, or both where an applicant knowingly and willingly falsifies, conceals, or covers up a material fact; or knowingly makes or uses a false, fictitious or fraudulent statement.

Signature of Applicant Date

Dale L Irwin
036819DC6BBC49D...

3/18/2022

Applicant Must be (check all that apply): ☑ Owner ☑ Operator ☐ Lessee

Printed Name: Dale Irwin

Title: President, Greenidge Generation LLC

Signature of Owner (if different than Applicant) Date

Printed Name

Title

Signature of Contact / Agent Date

John Young

3/18/22

Printed Name: John Young

Title: VP, ASA Analysis & Communication

For Agency Use Only **DETERMINATION OF NO PERMIT REQUIRED**

Agency Application Number

(Agency Name) has determined that No Permit is required from this Agency for the project described in this application.

Agency Representative:

Printed Name

Title

Signature

Date

1b. Project Description

Greenidge Generation: Cylindrical Wedgewire Screen Installation – Joint Application Supplement

Project Description

Greenidge Generation is an electric generating facility that has been operating at the site in Town of Torrey, Yates County, New York since 1938 when Unit 1 was placed into service. The facility expanded to 4 units with combined generating capacity of 215 MW in 1953. Unit 4 (107 MW) is the only unit still in existence. Unit 4 has been converted from a coal-fired unit and now generates electricity by using natural gas with the ability to co-fire up to 19% wood biomass as a fuel source. The unit has a once-through cooling system. Water is withdrawn from Seneca Lake through a 1900 ft conduit that is 7 ft in diameter. The conduit extends northeast from the station for approximately 1230 ft overland, then and additional 600 ft over Seneca Lake, supported on a wooden trestle (Figure 1, Figure 2).

The project has two objectives. First, replace the 27 ft x 27 ft cooling water intake structure at the lake terminus of the pipe. The intake structure, also in existence since the 1950s, is made of steel sheeting held in place by H-piles driven into the lake bottom. The sheeting walls contain openings covered with bar racks to allow water flow into the structure and then into the inverted end of the intake pipe. In this phase of the project, the steel walls will be removed, C-channels will be inserted in the existing H-piles, and precast concrete walls will be installed between the C-channels. The walls will have circular openings (2 each on the North, East, and South walls) where cylindrical wedgewire screens will be mounted (Figure 3). The wedgewire screens have been determined to be Best Technology Available to minimize entrainment and impingement of fish by the New York State Department of Environmental Conservation.

The second objective is to repair the wooden trestle that holds the 7-ft diameter cooling water intake pipe above the surface of Seneca Lake (approximately 630 ft of the total 1830 ft structure). The wooden trestle, which has been in existence since the 1950s, is supported from the lake bottom by wooden pilings. The pilings and associated above-water wood structure are no longer structurally sound. The repair phase of the project will drive 38 new steel pilings into the bed of Seneca Lake, next to the existing structure (Figure 4). Supporting cross-ties will be inserted under the pipe and connected to the pilings to support the load of the pipe and water. The original pilings and trestle will be left in place.

This project will include hydraulic dredging of approximately 1100 yd^3 of sediment in and near the intake structure (Figure 5), with the dredge spoil pumped onshore to be dewatered in filter bags within an enclosed bermed area, approximately 15,000 ft^2. The water will drain back into Seneca Lake. The sediment, tested to be Class A, will be managed in accordance with all federal, state and local regulations. The dredged area will be stabilized with 200 yd^3 of coarse limestone.

In order to provide a continuous supply of cooling water to the condenser, two 48” by-pass intakes will be installed adjacent to the existing intake pipe (Figure 5). An area approximately 15 ft x 30 ft will be excavated to a depth of 4 ft to accommodate a 30 yd^3 roll-off to be used as a sump for the intakes. A barge-mounted bucket excavator will be used, with spoil placed into barge-mounted lined roll-offs. Because sediment in this area did not meet NYSDEC TOGS5.1.9 criteria as Class A or B sediment, this material will be dewatered, profiled/characterized and managed in accordance with federal, state and local regulations. Stone ballast will be used to hold the roll-off in place during use. The bypass intakes and roll-off will be removed at conclusion of the project.

Figure 1 Greenidge Generation site with project area and dewatering area indicated. Inset show location of the project with respect to the entire Seneca Lake region.

Figure 2 Portion of Greenidge cooling water intake conduit over Seneca Lake showing wooden support trestle, with intake structure at northeast end.

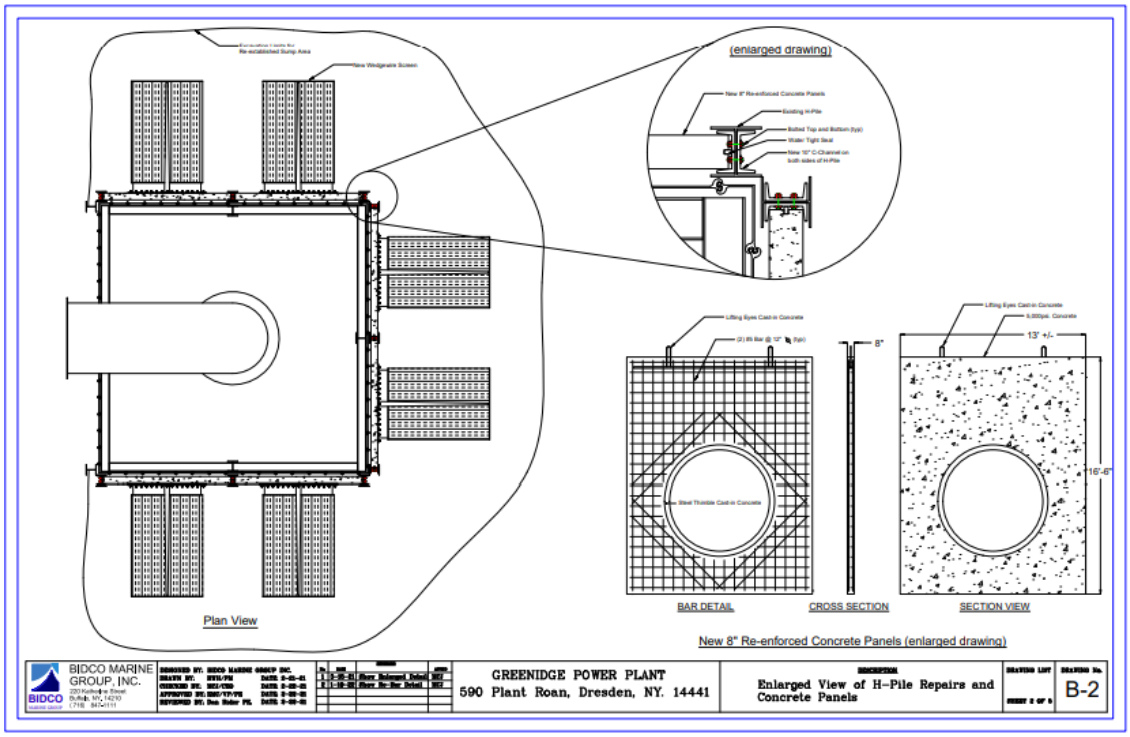


Figure 3 Precast concrete wall panels for intake structure repair and location of wedgewire screens.

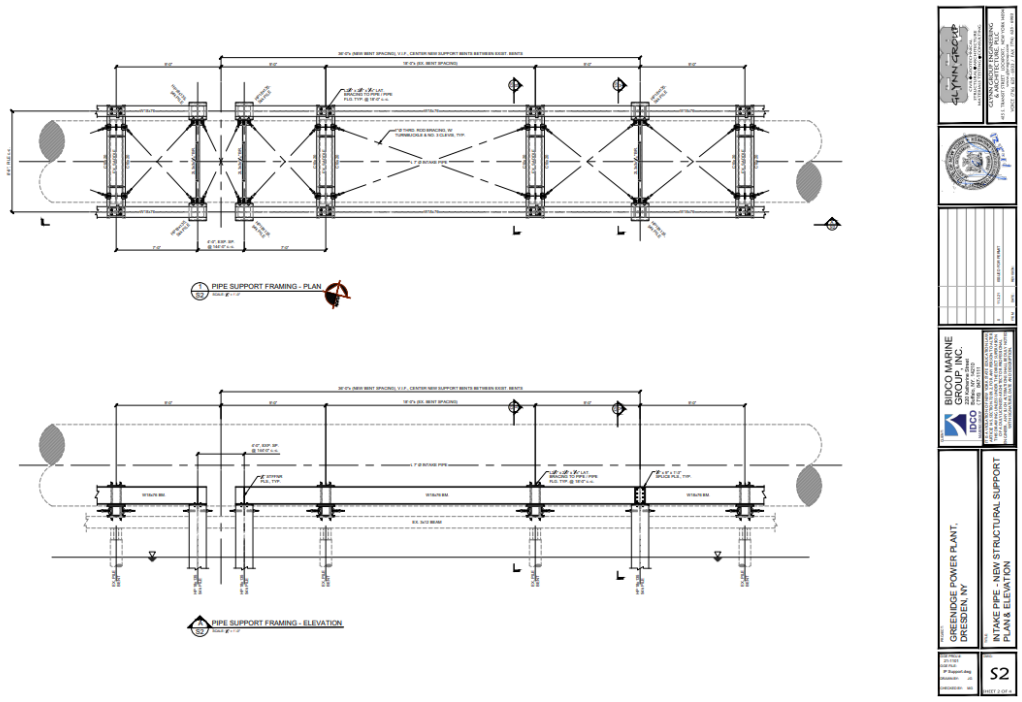


Figure 4 Pipe support trestle repair framing plan and elevation views.

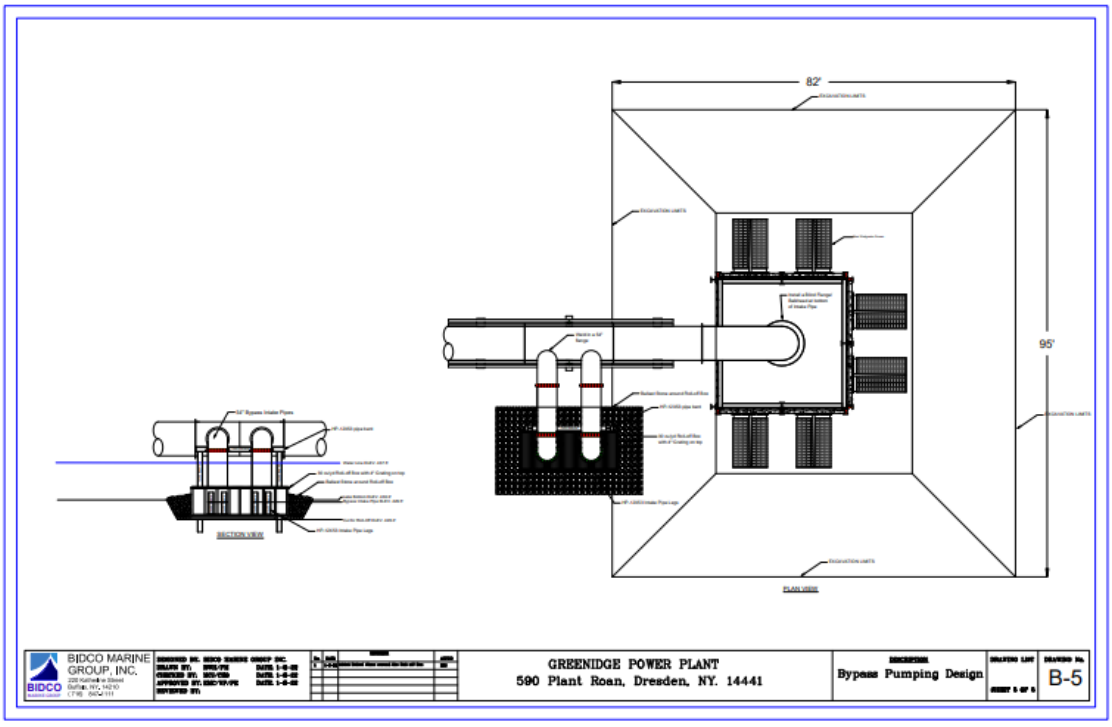


Figure 5 Plan view of new intake structure with 82 ft x 95 ft dredged area, and temporary by-pass intakes in plan and elevation view.

1c. Supporting Narrative

New York State/U.S. Army Corps of Engineers
Joint Application Form
Supplemental Materials for Section 6

Applicant: Greenidge Generation
590 Plant Road
Dresden, NY 14441

6.c Proposed site changes:

- Install 36 new foundation piles and cross-ties to provide additional support for an existing 7 ft. diameter water intake pipe. See Drawings S1-S4
- Dredge using barge-mounted closed clam-shell bucket excavator, approximately 70 $yd^3$of material to accommodate a 30 yd^3 rolloff-box to be used as a sump for temporary water intake suction ports. Ballast stone will be placed within and around the box to maintain its location. Roll-off and stone ballast will be removed at project completion. The 70 yd^3 of dredged material will be managed in accordance with all federal, state, and local regulations. See Drawing B-4.
- Install two (2) 48" temporary water intake suction ports on the existing intake pipe for By-Pass Water for use during intake modification & reconstruction. Ports will be removed at project completion. See Drawing B-4.
- Remove existing Trash Racks and existing Steel Plating on all four sides of current intake structure.
- Place C-channels in existing H-piles which support the intake structure.
- Dredge of 1100 yd^3 of sediment within and around intake structure. See Drawings B-3 and B-5.
- Place 200 yd^3 of 6" coarse limestone fill to stabilize the 95 ft x 82 ft dredged area
- Install new steel bulkhead on West wall of intake structure.
- Rebuild the existing water intake structure by placing pre-cast concrete panels within the C-channel guides on North, East, and South sides.
- Install 2 cylindrical wedge wire screens over openings in each of the precast walls (6 total). Grout all joints.
- Install mechanical and control hardware. See Drawings B-2, B-5, and Greenidge Layout 1/3, 2/3, and 3/3.

6.d Type of structures and fill materials to be installed, and quantity of materials to be used:

- Addition of thirty-six (36) HP 18x135 PILE, approximately 50' long (partly below waterline)
- 1,200 linear ft of new and added W18x76 BM pipe support stringers and new pipe support beams (above waterline). See Drawings S1-S4.
- 30 yd^3 roll-off to be used as sump for temporary by-pass intake. Two temporary steel pilings to support the roll-off and stone ballast for stabilization. Removed at conclusion of project.

- Addition of repair spices on existing H-Piles. See Drawings S1-S4.
- Addition of Pre-Cast Concrete Panels. See Drawing B-2.
- Place 200 yd^3 of 6" coarse limestone fill within vicinity of intake structure
- Addition of six (6) new D83-132EA-F WEDGEWIRE DRUM SCREENS (83" Diameter x 132" Long x #69). These screens have been approved by NYSDEC as part of Best Technology Available for the cooling water intake. See Drawings B-2, Greenidge Layout 2/3 and 3/3.

6.e Area of excavation or dredging, volume of material to be removed, location of dredged material placement:

- Excavation of temporary pits for diver access to make Pile Splices. It is estimated that 75 yd^3 will be removed and replaced back into the excavated pit once work is completed.
- An area of 15 ft x 30 ft x 4 ft will be dredged alongside the intake pipe for the bypass suction sump, approximately 70 yd^3. This dredging will be done with a barge-mounted closed clam-shell bucket excavator, with material placed into barge-mounted lined roll-offs. Material will be dewatered on shore, then managed according to federal, state, and local regulations.
- The interior of the intake structure requires maintenance dredging.
- The withdrawal zone under and near the screens will be dredged to a depth approximately 4 ft below the current lake bottom. Bottom contours will return to the current lake bottom within a zone approximately 95 ft x 82 ft using a 3:1 slope. Hydraulic dredging methods will be used. See Drawing B-5.
- Total sediment to be removed from within and near the intake structure is approximately 1100 yd^3. Spoil material will be pumped to shore, dewatered, and managed according to federal, state, and local regulations. The material has been tested (See Attachment 3b) demonstrating classification as a Class A sediment per TOGS 5.1.9. .
- Coarse limestone fill (6 in) will be placed over the 95 ft x 82 ft area to a depth of 1 ft. (≈200 yd^3)

6.f Is tree cutting or clearing proposed?

- No.

6.g Work methods and type of equipment to be used:

- Diver air-lifting methods will be utilized for the excavation of the twelve (12) pile splice pits.
- Diver hand-jetting methods will be utilized for the backfill of the pile splice pits.
- Barge-mounted closed clam-shell bucket excavator will be used to remove the material for the bypass sump. Material will be transported to shore, dewatered, and managed according to federal, state, and local regulations.
- Crane supported hydraulic dredging methods will be utilized for the removal of accumulated sediments from within the confines of the Water Intake Structure.
- Crane supported hydraulic dredging and/or diver hand dredging methods will be utilized for the removal of accumulated sediments within the withdrawal zone and sloped area.
- A 6" hydraulic Submersible Dredge Pump will be utilized for diver hand dredging and the same pump will be utilized for crane supported dredging.

- Spoil conveyance away from the intake for the hydraulic dredging will be piped along the intake conduit to the upland location for dewatering.
- Pile driving will use both vibratory and hydraulic impact hammer methods.

6.h Describe the planned sequence of activities:

Stabilization of Timber Pipe Trestle

- The means and methods proposed to construct the new pile bents are straight forward pile driving processes and will utilize generally accepted marine construction methods. All construction equipment will be situated on floating barges throughout the trestle stabilization operation. Personnel access to the work will be made from atop of the walkway platform on the trestle. The general process of construction for the stabilization of the trestle will proceed as follows:
- Establish vertical & horizontal control points to reference pipeline elevation during construction and to locate and lay out 20 new pile bents.
    - BIDCO to provide all required survey services.
    - Layout pile bents and set both fixed and visual points of reference.
- Starting from the Water Intake Structure and working from deepest water towards shore, BIDCO crews will construct twenty (20) new pipe pile bents as shown on Drawings S1, S2, S3, & S4 – Final Design.
    - Twenty (20) new pile bents will have two (2) straight piles each.
    - All pipe bents will utilize the existing header beams and pipe saddles.

Maintenance & Repair of Water Intake Structure

- The means and methods proposed to construct the modifications required to attach new wedge wire screens will utilize generally accepted underwater construction methods. All construction equipment will be situated on floating barges throughout the repair and refurbishment of the water intake structure, including the undertaking of maintenance dredging, and the installation of new wedge wire screens. Personnel access to the work will be made from atop of the walkway platform on the trestle.
- The general process of construction for the structural repair, restoration of hydraulic capacity, and the installation of six (6) new wedge wire screens at the Water Intake Structure will proceed as follows:
- Utilizing the crane barge, remove the deck grating from atop of the structure and remove accumulated sediments from within and around the intake structure to prepare for wedge wire screen installation.
- Utilize a crane supported hydraulic submersible dredge pump and remove all loose organics, soil, and accumulated sediments from within the intake structure.
- Removed spoils and displaced sediments will be pumped to shore and dewatered on Greenidge property prior to final disposal at an approved disposal facility.
- Temporary excavation of the areas to expose the existing H-piles at the proper elevation to be spliced attached to new structural C-Channels.

- Provide refurbished structural integrity to the existing H-Piles with the splice repair installation of the proposed 10" C-Channel within the web of the existing H-piles.

- The new C-Channel will also act as a guide-liner installed within the web of the H-pile; this is designed to allow easy drop-down installation of the proposed 8-inch-thick pre-cast concrete panels.

- Provide and install precast concrete wall panels on the exterior of three sides of the existing sheet pile structure to provide watertight integrity with all construction joints located within the intake structure.

- Place new steel bulkhead cover over trash rack opening on west wall of the intake structure.

- All precast concrete panels and steel bulkheads will be grouted in place following installation to provide a watertight seal at all joints and steel guide areas with a bentonite / cementitious grout mix. Similarly seal joints of new steel bulkhead to west wall.

- All precast concrete panels will be cast with an affixed mounting flange section within the poured concrete for the preconceived installation of the six (6) new wedge wire screens.

- Six (6) new fully assembled D83-132EA-F WEDGEWIRE DRUM SCREENS (83" Diameter x 132" Long x #69) will be mounted to the precast panels on a self-aligning flange. Fixed brushes and screen rotation mechanisms are on the screen when hung. Final installation will include water level differential pressure monitoring system stilling wells inside and outside the isolation structure and the control panel up on the deck.

6.i Pollution control methods and other actions proposed to mitigate environmental impacts:

- BIDCO will provide cleaning / disinfection for any equipment that will be deployed into Seneca Lake and will deploy an oil absorbent boom around the barge when it is assembled.
- All fuel-fired equipment will have secondary containment measures constructed to prevent fuel and/or oil leaks from getting into Seneca Lake.
- Fuel Supplies and Equipment Refueling:
    - Diesel Fuel: The operations will burn an average of 150 gallons per day. BIDCO will use a 1,000-gallon enclosed / dual wall diesel fuel tank with transfer pump and place it on the barge where it will be secured. However, when the tank needs to be replenished, the tank will be hoisted off the barge and refueled on land by a licensed supplier.
    - Unleaded Gasoline: The work boats use unleaded fuel and are not expected to use much fuel daily. The fuel will be brought on site in approved 5-gallon cans with dispensers.
- Equipment Refueling:

    - Refueling on the barge will be done using an approved transfer pump within / over secondary containment measure.
    - Boats as aforementioned will be refueled with spill prevention measures in place (approved dispensers, spill kits / absorbents on hand).
- Spill kits with ample absorbent materials will be maintained onboard and readily available if needed to respond to a spill.
- All hydraulic equipment (crane, hydraulic power units, tools, hoses, etc.) will use vegetable-based hydraulic fluids (Mobile 224EAL).

6.j Erosion and silt control methods that will be used to prevent water quality impacts:

- Silt Curtain will be utilized whenever a disturbance of the lake bed causes a visual turbidity of water clarity to occur. A full and proper 100% slit curtain containment will be provided around any impacted area.

6.k Alternatives considered to avoid regulated areas. If no feasible alternatives exist, explain how the project will minimize impacts:

k1) **No Action Alternative** – The intent of the proposed action is to install wedgewire screens and to improve the support of the intake structure. This screen installation is required to comply with Biological Monitoring Requirements of SPDES Permit NY0001325 Item B1.

In 2017, NYSDEC issued SPDES permit NY0001325 which required Greenidge to meet the requirements of 6 NYCRR 704.5 by installing variable speed pumping capability and small-slot wedgewire screens to reduce entrainment and impingement of aquatic life. The variable speed pumping capability was installed in 2019. This permit application is to support the remaining requirement for wedgewire screens.

k2) **Alternative Project Locations** – – No alternative project locations were considered. There is no other adequate, nearby source of cooling water available to Greenidge.

k3) **Alternative Construction Methods** –

Intake Support Structure – The intake conduit support structure will be structurally improved to handle the loading of the wedgewire screens with only limited out of service time to power generating facility.

Dredging Methods – Dredging with an excavator will be used for the small area required for the by-pass sump. This method will allow placement of the spoil in barge-mounted containers which will be off-loaded, de-watered, and then transported to an upland disposal site.

Clam-shell bucket is not a practical alternative for work around the intake structure. Hydraulic dredging will allow the control of depth and location that is required to reach designed project depth without damaging existing infrastructure that must be reused. Hydraulic dredging with material pumped to upland dewatering location will also minimize effects on lake water quality.

Dredge Material Disposal – Initial sediment sampling and analysis has been performed per the NYSDEC approved workplan dated October 28, 2021 (See Attachment 3a). No dredged material or spoils will be placed back into Seneca Lake and all disposal will be managed in accordance with federal, state and local regulations.

Construction Methods – The proposed construction methods have been developed to ensure minimal impact to water quality and sediment disturbances.

k4) **Preferred Alternative** - Given these considerations, the Preferred Alternative minimizes environmental impacts within Seneca Lake while allowing the Purpose and Need for the Proposed Action to be achieved.

6.l Proposed use: Commercial

6.m Proposed Start Date: 7/01/22 Estimated Completion Date: 10/1/22

6.n Has work begun on project? No.

6.o Will project occupy Federal, State, or Municipal land? YES. Most of the underwater lands within the project boundaries are already owned by the Applicant (Figure YY). However, parts of the dredged and filled area are underwater lands of New York State. Applicant has initiated the legal process required to obtain permission to use these areas.

6.p List any previous DEC, USACE, OGS, or DOS permit/Application numbers for activities at this location:

NYSDEC Permit ID No.	Permit Type	EDP	ExDP
8-5736-00004/00018	Excavation & Fill in Navigable Waters Article 15, Title 5	6/9/2021	12/31/2022
8-5736-00004/00001-0	SPDES Discharge Permit NY0001325	10/1/2017	9/30/2022
8-5736-00004/00015	Water Withdrawal Permit	9/11/2017	9/30/2022

6.q Will the project require additional Federal, State, or Local authorizations, including zoning changes?

Protection of Waters – NY State Department of Environmental Conservation

Permission to use underwater Lands – NY State Office of General Services

Clean Water Act Sections 10 and 404 (NWP #3)– United States Army Corp or Engineers

Consultation with USFWS

PROJECT DRAWINGS INCLUDED

BIDCO Drawings

B-1 Cross Section of Intake Screens

B-2 Enlarged View of H-Pile Repairs and Concrete Panels

B-3 Cross Section Showing the Sump Area, Repairs to H-Pile and Concrete Panel

B-4 Bypass Pumping Design

B-5 Bypass Pumping Design (Showing bounds of excavation)

S1 Intake Pipe – New Structural Support Plan & Elevation

S2 Intake Pipe – New Structural Support Plan & Elevation

S3 Intake Pipe – New Structural Support Sections, Details & Notes

ISI Drawings

GN1-TR02 1/1 Thimble

D83-132EB-F 1/5 Screen / Thimble

D83-132EB-F 2/5 Screen / Thimble

D83-132EB-F 3/5 Screen / Thimble

D83-132EB-F 4/5 Screen / Thimble

D83-132EB-F 5/5 Screen / Thimble

1/3 Greenidge Layout

2/3 Greenidge Layout

3/3 Greenidge Layout

1d. Wetlands Analysis

New York State/U.S. Army Corps of Engineers
Joint Application Form
Supplemental Materials for Section 6

Wetlands Analysis

Wetlands near the project site were examined in the National Wetlands Inventory on 1/31/22 (Figure 1). The project area, demarcated by the blue line, is approximately a 1 ac. area extending out from the shore of Seneca Lake to about 750 ft. The project area is entirely within the boundaries of Seneca Lake, a 36,852 ac. waterbody designated as code **L1UBH**. Within the vicinity of, but entirely outside the project areas are wetlands designated as

PFO1A: 9.93 ac. of palustrine/forested wetlands approximately 1700 ft west of the project area

PEM1A: 1.46 ac. of emergent wetlands approximately 1150 ft WNW of the project.

PUBKx: 6.5 ac. of palustrine wetland 430 ft SW of the project

PSS1/EM1E: 2,95 ac. of palustrine/emergent wetlands 1275 ft. S of the project

Inspection of the site, and historical records, clearly indicate that the area designated as PUBKx wetland immediately south of the Greenidge facility is not a wetland. Notations in the wetlands inventory mapper indicate that aerial photography from 1995 was interpreted as a freshwater pond (Figure 2). Photography available on Google Earth from 1995 shows the black area that was interpreted as a pond (Figure 3), but in later imagery, it is clearly the coal pile for the facility (Figure 4). Although the coal pile is no longer there, this area is sloped and contains no standing water and should have the wetlands classification removed.

All project activities will occur outside any of the designated wetland areas. The area to be used for dewatering the dredge spoil is near the PUBKx wetland. For the dewatering area, an area approximately 15,000 ft^2 will be enclosed by a berm of clean sand, then lined with plastic. Fabric filters will be placed within the bermed area. Water contained within the area will drain back to Seneca lake through a drain pipe. There will be no fill or work within this wetland as the result of this project

Figure 1 Designation of wetlands on and near the Greenidge facility according to National Wetlands Inventory accessed on 2/25/22.

Figure 2 Detailed information on the designated PUBKx wetland south of the Greenidge powerhouse accessed 2/25/22.

Figure 3 Aerial photograph of the Greenidge site from April, 1995. Imagery obtained from Google Earth on 2/25/22.

Figure 4 Aerial photograph of the Greenidge site from October, 2008. Imagery obtained from Google Earth on 2/25/22.

Code description for Wetland Types in Vicinity

Classification code: L1UBH

System **Lacustrine (L)** : The Lacustrine System includes wetlands and deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, and emergent mosses or lichens with 30 percent or greater areal coverage; and (3) total area of at least 8 hectares (ha) (20 acres). Similar wetlands and deepwater habitats totaling less than 8 ha are also included in the Lacustrine System if an active wave-formed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin equals or exceeds 2.5 m (8.2 ft) at low water. Lacustrine waters may be tidal or nontidal, but ocean-derived salinity is always less than 0.5 ppt.

Subsystem **Limnetic (1)** : This Subsystem includes all deepwater habitats (i.e., areas > 2.5 m [8.2 ft] deep below low water) in the Lacustrine System. Many small Lacustrine Systems have no Limnetic Subsystem.

Class **Unconsolidated Bottom (UB)** : Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.

Water Regime **Permanently Flooded (H)** : Water covers the substrate throughout the year in all years.

Classification code: PFO1A

System **Palustrine (P)** : The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

Class **Forested (FO)** : Characterized by woody vegetation that is 6 m tall or taller.

Subclass **Broad-Leaved Deciduous (1)** : Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (Fraxinus nigra).

Water Regime **Temporary Flooded (A)** : Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for the most of the season.

Classification code: PEM1A

System **Palustrine (P)** : The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

Class **Emergent (EM)** : Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.

Subclass **Persistent (1)** : Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.

Water Regime **Temporary Flooded (A)** : Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for the most of the season.

Classification code: PUBKx

System **Palustrine (P)** : The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

Class **Unconsolidated Bottom (UB)** : Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.

Water Regime **Artificially Flooded (K)** : The amount and duration of flooding are controlled by means of pumps or siphons in combination with dikes, berms, or dams. The vegetation growing on these areas cannot be considered a reliable indicator of Water Regime. Examples of Artificially Flooded wetlands are some agricultural lands managed under a rice-soybean rotation, and wildlife management areas where forests, crops, or pioneer plants may be flooded or dewatered to attract wetland wildlife. Neither wetlands within nor resulting from leakage from man-made impoundments, nor irrigated pasturelands supplied by diversion ditches or artesian wells, are included under this Modifier. The Artificially Flooded Water Regime Modifier should not be used in the Riverine system or for impoundments or excavated wetlands unless both water inputs and outputs are controlled to achieve a specific depth and duration of flooding.

Classification code: PSS1/EM1E

System **Palustrine (P)** : The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

Class **Scrub-Shrub (SS)** : Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.

Subclass **Broad-Leaved Deciduous (1)** : Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (Fraxinus nigra).

Split Class **Emergent (EM)** : Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.

Split Subclass **Persistent (1)** : Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.

Water Regime **Seasonally Flooded/Saturated (E)** : Surface water is present for extended periods (generally for more than a month) during the growing season, but is absent by the end of the season in most years. When surface water is absent, the substrate typically remains saturated at or near the surface.

1e. Endangered Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To: March 17, 2022
Project Code: 2022-0001228
Project Name: Greenidge Cylindrical Wedgewire Screens

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

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Project Code: 2022-0001228
Event Code: None
Project Name: Greenidge Cylindrical Wedgewire Screens
Project Type: Power Gen - Natural Gas
Project Description: The project site is near the shore of Seneca Lake, in Yates County, NY. The project is to install wedgewire screens on the cooling water intake structure to protect fish and aquatic life. The steel walls of the current intake structure will be removed and replaced with pre-cast concrete walls. Six cylindrical wedgewire screens will be mounted over openings in the new walls. The project will require removal of approximately 1170 cu yd sediment, with upland disposal, and permanent placement of approximately 200 cu yd of coarse limestone fill. In addition, the intake pipe support trestle will be repaired by driving 36 steel piling alongside the trestle and installing cross-ties to help support the pipe. The project will take place July-Sep, 2022. Additional detail in project description document.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.6826691,-76.94266935825979,14z

Counties: Yates County, New York

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

---

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

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

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

IPaC User Contact Information

Agency: ASA Analysis & Communication, Inc.
Name: John Young
Address: 310 Goldfinch Drive
City: State College
State: PA
Zip: 16801
Email jyoung@asaac.com
Phone: 8147774519

Lead Agency Contact Information

Lead Agency: Army Corps of Engineers

1f. USFWS Consultation Form

Greenidge Cylindrical Wedgewire Screens

Biological Assessment

Prepared using IPaC

Generated by John Young (jyoung@asaac.com)

March 17, 2022

The purpose of this Biological Assessment (BA) is to assess the effects of the proposed project and determine whether the project may affect any Federally threatened, endangered, proposed or candidate species. This BA is prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C. 1536 (c)).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of March 4, 2022.

Prepared using IPaC version 6.72.1-rc6

Greenidge Cylindrical Wedgewire Screens Biological Assessment

Table Of Contents

1 Description of the action 5
1.1 Project name 5
1.2 Executive summary 5
1.3 Project description 6
1.3.1 Location 6
1.3.2 Description of project habitat 7
1.3.3 Project proponent information 7
1.3.4 Project purpose 7
1.3.5 Project type and deconstruction 7
1.3.6 Anticipated environmental stressors 13
1.4 Action area 17
1.5 Conservation measures 18
1.5.1 compact design 18
1.5.2 spill prevention 19
1.5.3 work scheduling 20
1.6 Prior consultation history 20
1.7 Other agency partners and interested parties 20
1.8 Other reports and helpful information 20
2 Species effects analysis 21
2.1 Monarch Butterfly 21
Justification for exclusion 21
3 Critical habitat effects analysis 22
4 Summary Discussion, Conclusion, and Effect Determinations 23
4.1 Effect determination summary 23
4.2 Summary discussion 23
4.3 Conclusion 23

1 Description Of The Action

1.1 Project Name

Greenidge Cylindrical Wedgewire Screens

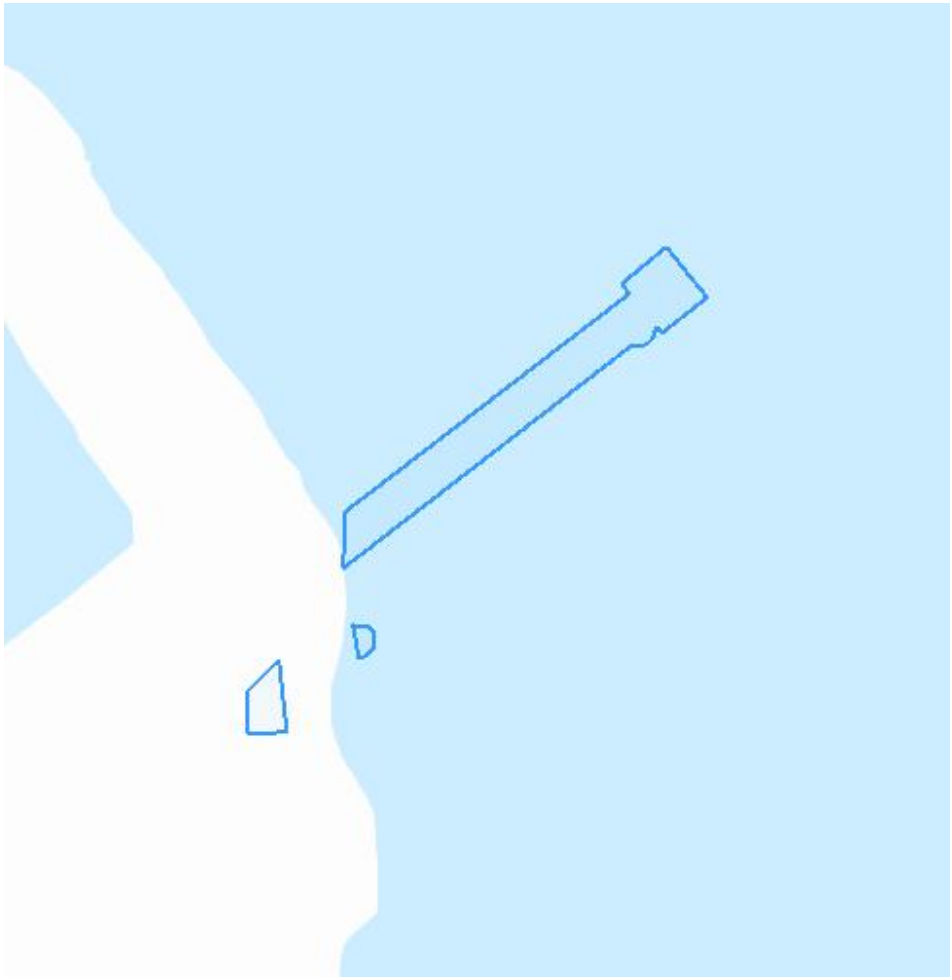
1.2 Executive Summary

This project is to complete the installation of wedgewire screens on the cooling water intake structure to protect fish and aquatic life and repair an existing intake pipe support trestle that extends into Seneca Lake. Intake structure modifications will entail removing the existing steel walls and replacing them with pre-cast concrete panels. Six cylindrical wedgewire screens will be attached to the panels. The screens will minimize entrainment and impingement losses of fish and other aquatic organisms. Approximately 1170 cu yd of sediment will removed from the lake in the vicinity of the intake structure and approximately 200 cu yd of coarse limestone fill will be placed in the dredged area. The sediment will be dewatered on shore within a temporary bermed area to be constructed. All waste material will be managed in accordance with federal, state and local requirements. The trestle repairs include driving 36 pilings into the lake bed, and installing above-water cross-ties between the pilings to support the intake pipe.

Effect determination summary

1.3 Project Description

1.3.1 Location



LOCATION
Yates County, New York

1.3.2 Description of project habitat

The project is to install wedge-wire screens on the intake structure to minimize entrainment and impingement of aquatic life and to repair wooden support trestle over Seneca Lake. This project requires dredging approximately 1170 cu yards of material from the bottom. All waste material will be managed in accordance with federal, state and local requirements.

1.3.3 Project proponent information

Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.

FULL NAME
John Young

STREET ADDRESS
310 Goldfinch Drive

CITY
State College

STATE
PA

ZIP
16801

PHONE NUMBER
8147774519

E-MAIL ADDRESS
jyoung@asaac.com

1.3.4 Project purpose

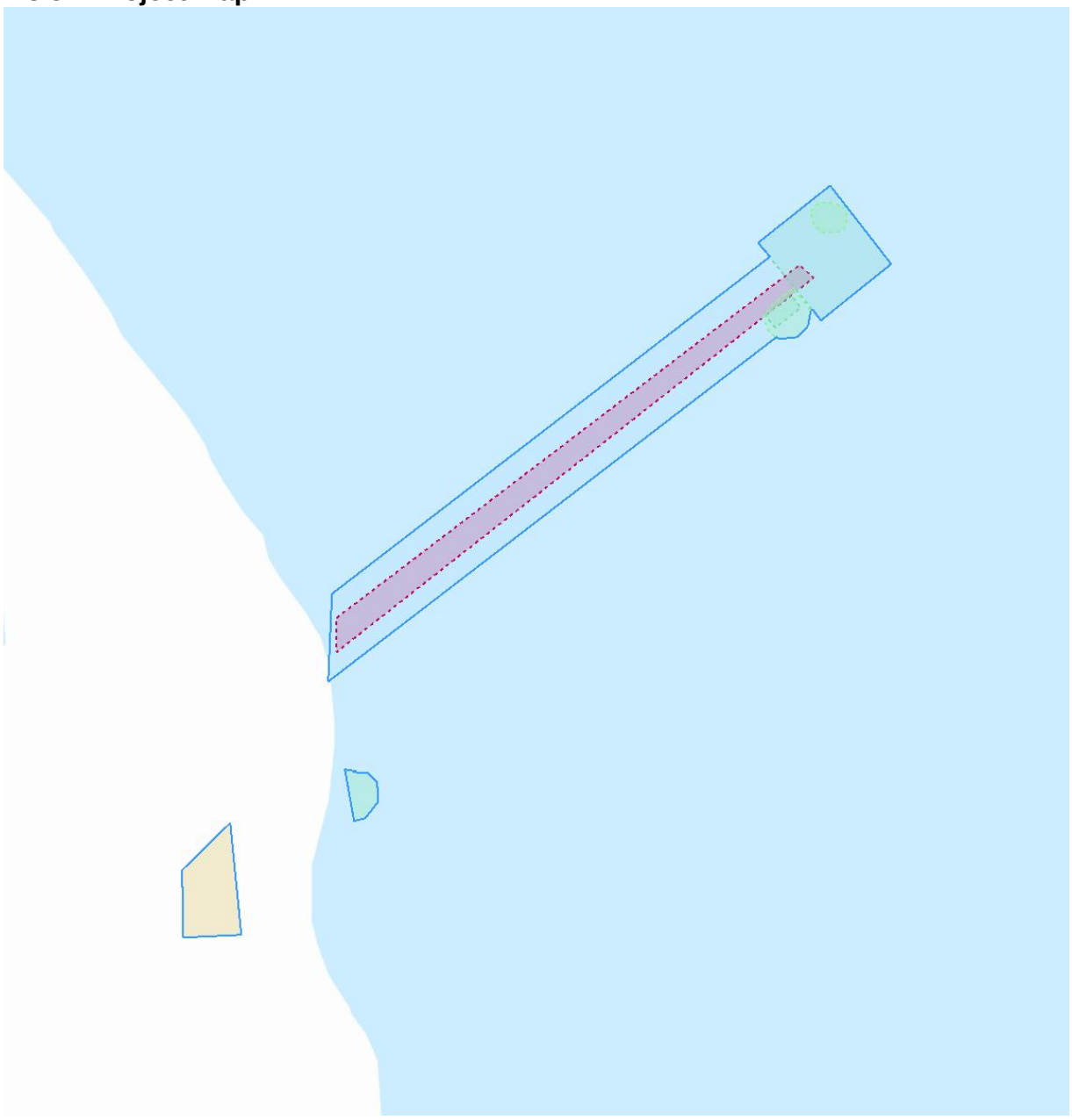
The intake structure will be rebuilt to accommodate the use of 0.5 mm slot wedgewire screens. These screens have been determined as Best Technology Available to minimize entrainment and impingement impacts on aquatic life by NYSDEC. Installation of the screens is a condition in the facility SPDES permit.

The wooden trestle supporting the intake pipe was constructed in the 1950s and is in need of repair. The repairs will allow it's continued use to supply cooling water to the Greenidge Generation facility.

1.3.5 Project type and deconstruction

This project is a wedgewire screen installation project.

1.3.5.1 Project map



LEGEND


Project footprint


Containment berm: Berm / levee (structure)


Excavate/Fill: Addition of fill, excavate soils/sediments, roll-off box (structure)


Pile Driving: Impact pile driving

Turbidity Curtain: Turbidity curtain (structure)

1.3.5.2 berm / levee

Structure completion date
July 01, 2022

Removal/decommission date (if applicable)
November 01, 2022

Stressors
This activity is not expected to have any impact on the environment.

Description
The temporary berm to contain water from hydraulically dredged sediments will be constructed on land that is already level and cleared of trees. The berm will be constructed of clean construction sand, then lined to make it waterproof, and surrounded by a silt fence. Decanted water will be pumped back into Seneca Lake within a silt curtain. The berm will enclose approximately 15,000 sq ft.

1.3.5.3 roll-off box

Structure completion date
September 30, 2022

Removal/decommission date (if applicable)
September 30, 2022

Stressors

SOIL AND SEDIMENT

- Change in sediment

Description
In order to continue to withdraw water through the intake pipe during the project, a temporary by-pass intake will be constructed. The by-pass will require that a small depression be dredged in the lake bottom, placement of a 30 cu yd roll-off to serve as a sump, and addition of rock ballast to maintain the roll-off in place. The by-pass and roll-off will be removed at completion of the project. The area to be dredged is approximately 15 ft x 30 ft with approximately 70 cu yd removed. The dredging will be done with a closed clam-shell bucket, with sediment placed into barge-mounted lined roll-off containers. After decanting the water the sediment will be profiled and characterized and managed in accordance with all federal, state and local requirements.

1.3.5.4 turbidity curtain

Structure completion date
September 30, 2022

Removal/decommission date (if applicable)
September 30, 2022

Stressors
This activity is not expected to have any impact on the environment.

Description
Three areas will be surrounded by a turbidity curtain during activities that will disturb sediments. Turbidity curtains will be placed around the area of the intake structure during hydraulic dredging 1100 cu yds, around the area of the by-pass sump during closed clam-shell dredging of 70 cu yds, and around the decant water return point. The hydraulic dredging will pump the sediment to the containment berm. Sediments removed by the clam shell dredge will be placed into barge-mounted roll-off containers.

1.3.5.5 addition of fill

Activity start date
July 01, 2022

Activity end date
September 30, 2022

Stressors

HUMAN ACTIVITIES

- Increase in noise

Description
The project takes place largely on Seneca Lake. The only on-shore activities will be loading of materials onto work barges, and the sediment dewatering activities.

Fill materials include the driving of 36 permanent steel pilings, and 2 temporary pilings, along the existing pipe support trestle, and the addition of 200 cu yd of coarse limestone to stabilize the dredged area around the intake structure.

1.3.5.6 excavate soils/sediments

Activity start date
July 01, 2022

Activity end date
September 20, 2022

Stressors

SOIL AND SEDIMENT

- Increase in soil compaction

HUMAN ACTIVITIES

- Increase in noise

Description
Sediment will be removed from two areas in Seneca Lake. From within and around the existing intake structure, approximately 1100 cu yd will be hydraulically dredged. This will occur in an area approximately 82 ft x 95 ft around the existing intake structure. Dredge depth in the center will be 6 ft, and taper to the current lake bottom at a 3:1 slope. The proposed dredged material in the area surrounding the intake structure has been sampled, analyzed and classified (Technical and Operational Guidance Series (TOGS) 5.1.9, In-Water and Riparian Management of Sediment and Dredged Material (November 2004)) as a Class A sediment which has no appreciable contamination. This sediment will be pumped to onshore containment area for decanting, then managed in accordance with all federal, state and local requirements.

A much smaller area at the by-pass will dredged with a closed clam-shell bucket. This area is approximately 15 ft x 30 ft; 70 cu yd will be removed and placed into lined barge-mounted roll-off containers.

All dredging will be done from barges. Turbidity curtains will surround the areas during dredging activities.

Soil compaction in and around the decant area (15,000 sq ft) may occur during construction or removal.

1.3.5.7 impact pile driving

Activity start date
July 01, 2022

Activity end date
July 15, 2022

Stressors

HUMAN ACTIVITIES

- Increase in noise

Description
Driving 38 steel piles (36 permanent, 2 temporary) will occur during early July. The piles will be placed along the existing wood trestle. The work will be completed within approximately a 1-2 week period.

1.3.6 Anticipated environmental stressors

Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.

1.3.6.1 Soil and Sediment

The topmost layer of earth on the landscape and its components (e.g., rock, sand, gravel, silt, etc.). This feature includes the physical characteristics of soil, such as depth, compaction, etc. Soil quality attributes (e.g, temperature, pH, etc.) should be placed in the Environmental Quality Features.

1.3.6.1.1 Change in sediment

ANTICIPATED MAGNITUDE
This stressor is not expected to occur; the following explanation has been provided:

Project will include measures to avoid changes in sediment other than physical removal. These include commonly employed spill prevention measures for working fluids (use of organic degradable fluids), and equipment refueling protocols, and use of turbidity curtains to minimize sediment dispersal outside the project area.

CONSERVATION MEASURES

- Spill prevention

STRUCTURES AND ACTIVITIES

- Roll-off box

1.3.6.1.2 Increase in soil compaction

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

The project was designed with a very small on-shore footprint, comprising only the ~15,000 sq ft area enclosed by the berm. Roads to access the area for the berm already exist.

CONSERVATION MEASURES

- Compact design

STRUCTURES AND ACTIVITIES

- Excavate soils/sediments

1.3.6.2 Human Activities

Human actions in the environment (e.g., fishing, hunting, farming, walking, etc.).

1.3.6.2.1 Increase in noise

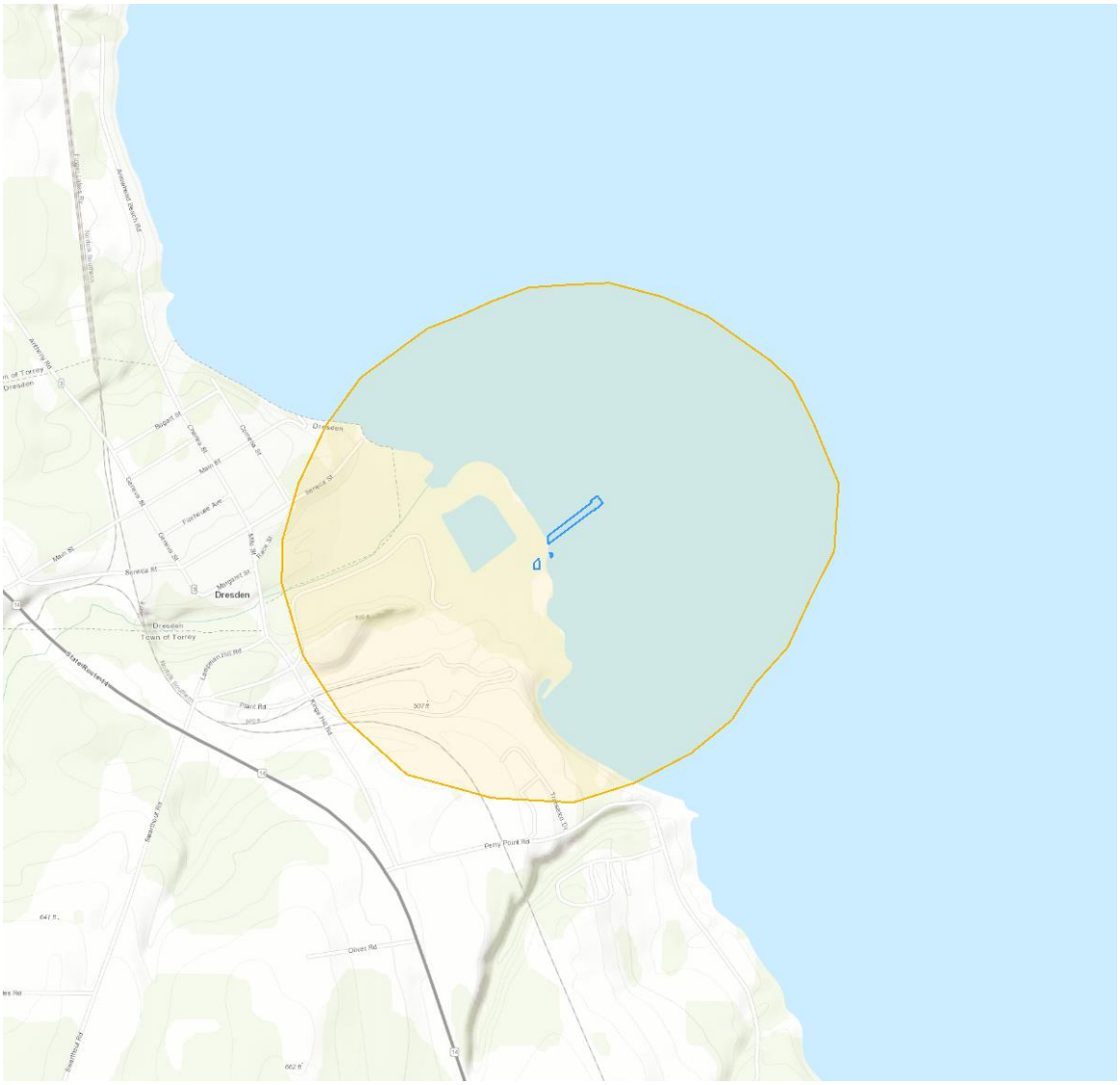
ANTICIPATED MAGNITUDE

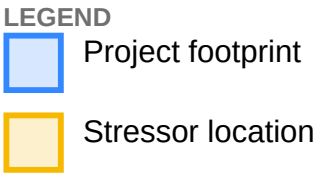
Noise from pile driving and from motors driving pumps and other equipment is unavoidable. The project will minimize the noise impacts because it's location is not nearby public areas or private residences. The nearest residences are approximately 1/2 mile from the project site (map), and buffered by topography and vegetation.

Pile driving would be expected to produce sound levels of about 110 dB at a distance of 50 ft. This is attenuated through distance by approximately 6 dB for each doubling of distance. At 1/2 mile, the expected sound level would be 76 dB (loudness only 10% of that at the source), without accounting for topography or vegetation between the project site and residential locations.

The work will be scheduled during daytime hours during the work week. The pile driving, the loudest activity during the project, will occur during a 1-2 week period, and the entire project will be completed within 3 months. There will be no ongoing noise impacts after completion.

STRESSOR LOCATION


Dresden
Main St
Seneca St
Dresden
Town of Torrey
Perry Point Rd
Oliver Rd


LEGEND
Project footprint
Stressor location

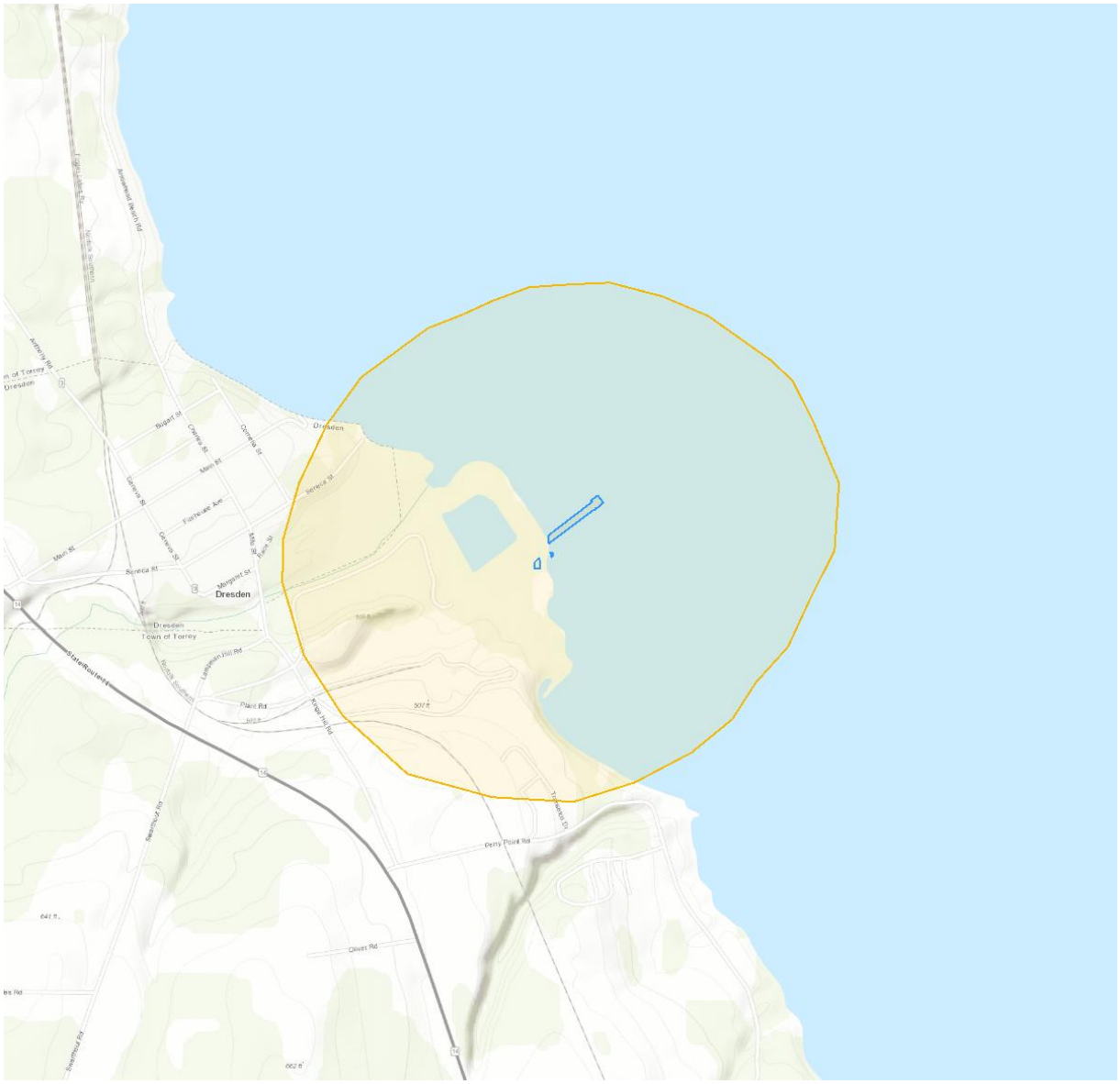
CONSERVATION MEASURES

- Spill prevention
- Compact design
- Work scheduling

STRUCTURES AND ACTIVITIES

- Excavate soils/sediments
- Addition of fill
- Impact pile driving

1.4 Action Area



1.5 Conservation Measures

1.5.1 compact design

Description

The on-shore component of the project is restricted to a 90 ft x 100 ft containment berm for the dredge spoil dewatering. This area is accessed by existing unpaved roadways. There will be heavy equipment using these roadways to haul in sand for the berm and for construction and deconstruction of the berm. No tree cutting or additional land clearing will be required.

Stressors

- Increase in noise
- Increase in soil compaction

1.5.2 spill prevention

Description

1) Contractor will provide cleaning / disinfection for any equipment that will be deployed into Seneca Lake and will deploy an oil absorbent boom around the barge when it is assembled.

2) All fuel-fired equipment will have secondary containment measures constructed to prevent fuel and or oil leaks from getting into Seneca Lake.

3) Fuel Supplies and Equipment Refueling:

a. Diesel Fuel: The operations will burn an average of 150 gallons per day. BIDCO will use a 1,000-gallon enclosed / dual wall diesel fuel tank with transfer pump and place it on the barge where it will be secured. However, when the tank needs to be replenished, the tank will be hoisted off the barge and refueled on land by a licensed supplier.

b. Unleaded Gasoline: The work boats use unleaded fuel and are not expected to use much fuel daily. The fuel will be brought on site in approved 5-gallon cans with dispensers.

4) Equipment Refueling:

a. Refueling on the barge will be done using an approved transfer pump within / over secondary containment measure.

b. Boats as aforementioned will be refueled with spill prevention measures in place (approved dispensers, spill kits / absorbents on hand).

5) Spill kits with ample absorbent materials will be maintained onboard and readily available if needed to respond to a spill.

6) All hydraulic equipment (crane, hydraulic power units, tools, hoses, etc.) will use vegetable-based hydraulic fluids (Mobile 224EAL

Stressors

- Change in sediment
- Increase in noise

1.5.3 work scheduling

Description
Project activities will produce unavoidable increase in noise. To the extent possible, the loudest activity (pile driving) will occur over approximately a 1-2 week period and during daytime hours to limit disturbance to nearby residents (all at least 1/2 mile from the project site) will not be disturbed.

Stressors
- Increase in noise

1.6 Prior Consultation History
None

1.7 Other Agency Partners And Interested Parties
NY Department of Environmental Conservation - Chris Hogan chris.hogan@dec.ny.gov

1.8 Other Reports And Helpful Information
Enclosed are design drawings for the repair to the trestle, the intake structure, the wedgewire screens, and the containment berm area.

Relevant documentation
- Greenidge Containment Area Drawing 2
- 1b_Project Description 031622
- Greenidge Containment Area Drawing 1
- 3_Permit App Drawings
- Greenidge Containment Area Drawing 3
- 1f_Migratory Birds 031622
- 1d_Wetlands Analysis 031622

2 Species Effects Analysis

This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).

These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.

2.1 Monarch Butterfly

This species has been excluded from analysis in this environmental review document.

Justification for exclusion

Nearly all project activities will be conducted within Seneca Lake. Only on-shore aspects are a 15,000 sq ft bermed area for dewatering sediments. The area will be restored at project conclusion.

3 Critical Habitat Effects Analysis

No critical habitats intersect with the project action area.

4 Summary Discussion, Conclusion, And Effect Determinations

4.1 Effect Determination Summary

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
Monarch Butterfly	Danaus plexippus	Candidate	Excluded from analysis	Excluded from analysis

4.2 Summary Discussion

The project is to install wedgewire screens on a cooling water intake structure that has existed for nearly 70 years, and repair the wooden support trestle that holds the intake pipe above the surface of Seneca Lake. The new intake screens are a required condition under State Pollutant Discharge Elimination System (SPDES) Permit number NY0001325.

The disturbances due to the project are dredge 1170 cu yd from the bottom of Seneca Lake, place 200 cu yd of coarse limestone fill, replace steel walls of the intake structure with pre-cast concrete walls, install wedgewire screens over the water intake openings, and drive 36 steel pilings to provide additional support for the intake pipe. Dredged material will be dewatered on-shore, and managed in accordance with federal, state, and local regulations. Turbidity curtains will be used continuously during all dredging and sediment disturbance activities. All activities will be conducted in an environmentally protective manner.

Impacts will be minor and temporary. The wedgewire screens will result in a permanent reduction of entrainment and impingement of aquatic organisms.

4.3 Conclusion

The project will have no effect on Monarch Butterfly or its habitat. The project will take place largely on Seneca Lake. The small amount of terrestrial disturbance is on land that has previously been cleared and disturbed. No critical habitat for Monarch Butterfly has been identified on the project site. The project has an overall beneficial environmental effect following the installation of the cylindrical wedgewire screens. These will reduce entrainment and impingement of aquatic organisms.

Greenidge Generation: Cylindrical Wedgewire Screen Installation – Joint Application Supplement

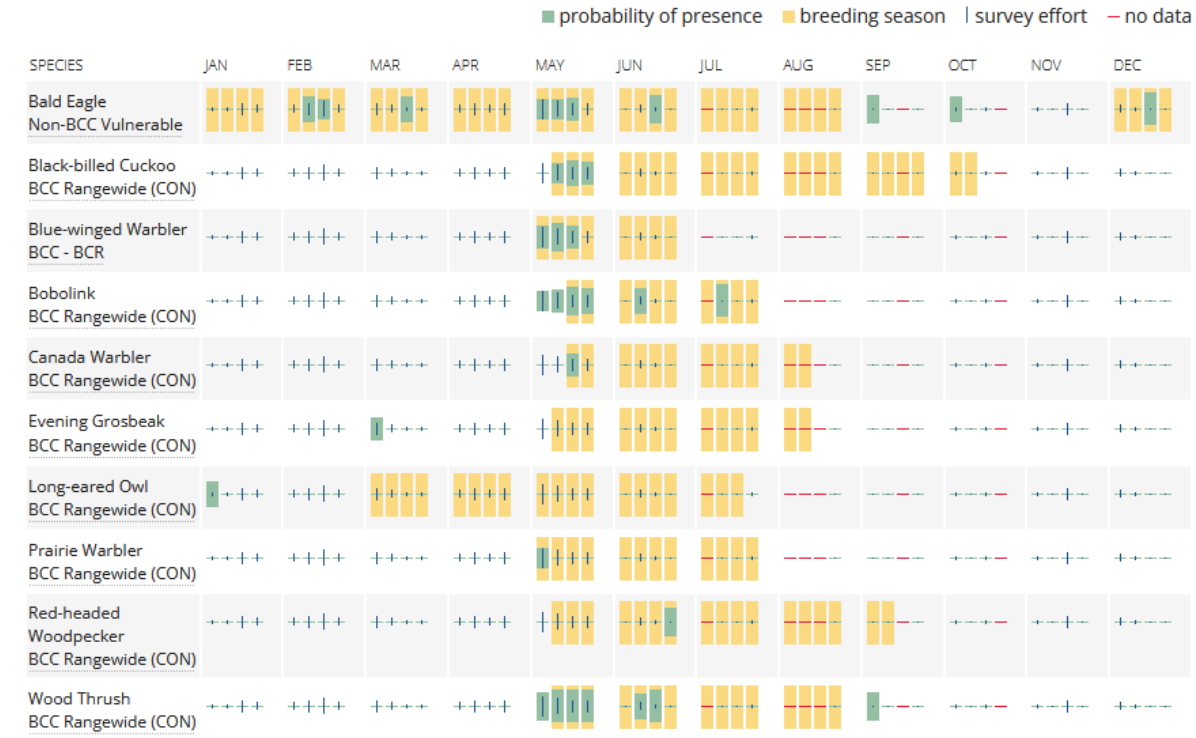
Migratory Bird Assessment

The US Fish & Wildlife Service Information for Planning and Consultation (IPaC) has identified 10 migratory bird species that may occur in the area. The project period of activity (July-September) is coincident with at least part of the breeding season for 9 of the species, although the start of the breeding season is at least 2 months prior to the project for all of them.

For the project months, there is actually very little survey data available on which probability of presence can be estimated. All 10 of the species are terrestrial. The project will have very little effect on terrestrial habitat.

Migratory Bird Probability of Presence for this Project

Tell me about these graphs.



2. NYSDEC SEQR State Environmental Quality Review

2a. Short Environmental Assessment Form

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. 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.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Greenidge Generation LLC

Name of Action or Project:
Install cylindrical wedgewire screens and repair intake pipe support trestle

Project Location (describe, and attach a location map):
The project site is within Seneca Lake adjacent to property at 590 Plant Road, Dresden, NY. The location extends 730 ft from the shoreline.

Brief Description of Proposed Action:
Proposed action includes removing existing intake structure walls, dredging within a 82-foot x 95-ft area around the intake structure with spoil pumped on shore for dewatering and disposal, placing C-channels within the existing H-channels of the intake structure, installing pre-cast concrete wall panels, and then installing the cylindrical wedgewire screens. In addition, repair a wooden support trestle that has been in place since 1953 by driving new steel pilings to help support the intake pipe while leaving the existing wooden structure and pilings in place. See Section 1b Project Description for additinal information.

Name of Applicant or Sponsor:	Telephone: 315 536-2359
Greenidge Generation LLC	E-Mail: dirwin@greenidge.com

Address:
590 Plant Road

City/PO:	State:	Zip Code:
Dresden	NY	14441

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: US Army Corps of Engineers, DEC	☐	☑

3. a. Total acreage of the site of the proposed action? ~1 acres
   b. Total acreage to be physically disturbed? 0.2 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 153 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☑ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☐	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☑	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☑	☐

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☑	☐

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☑	☐

	NO	YES
12. a. 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?	☑	☐
See Section 2c for Structural Archaeological Assessment Form. b. 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?	☐	☑

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ One component of the project would be conducted near, but not in, a designated PUBKx federal wetland of 6.5 acres. An area approximately 15,000 sq ft would be bermed and used for a dewatering containment for dredge spoil. The water would be drained back into Seneca Lake. The dewatered dredge spoil and the berm will be removed at conclusion of the project. See Section 1d for description of the wetland areas. _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☑ Shoreline ☐ Forest ☐ Agricultural/grasslands ☑ Early mid-successional

☐ Wetland ☐ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☐	☑
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☑	☐
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☑	☐
If Yes, briefly describe:		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☐	☑
If Yes, explain the purpose and size of the impoundment: A 15,000 sq ft bermed area, lined with plastic, will be used to dewater approximately 1100 cu yd of dredge spoil. The structure will be removed at project conclusion.		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☐	☑
If Yes, describe: All historic spills that have occurred on the property have been closed by NYSDEC. Site 862006 (Mercury Aircraft site) is located south of the Greenidge property. See Section 2b for additional information.		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Dale Irwin Date: 3/18/2022

DocuSigned by: Dale Irwin 036819DC6BBC49D...

Signature: _____ Title: President, Greenidge Generation LLC

PRINT FORM

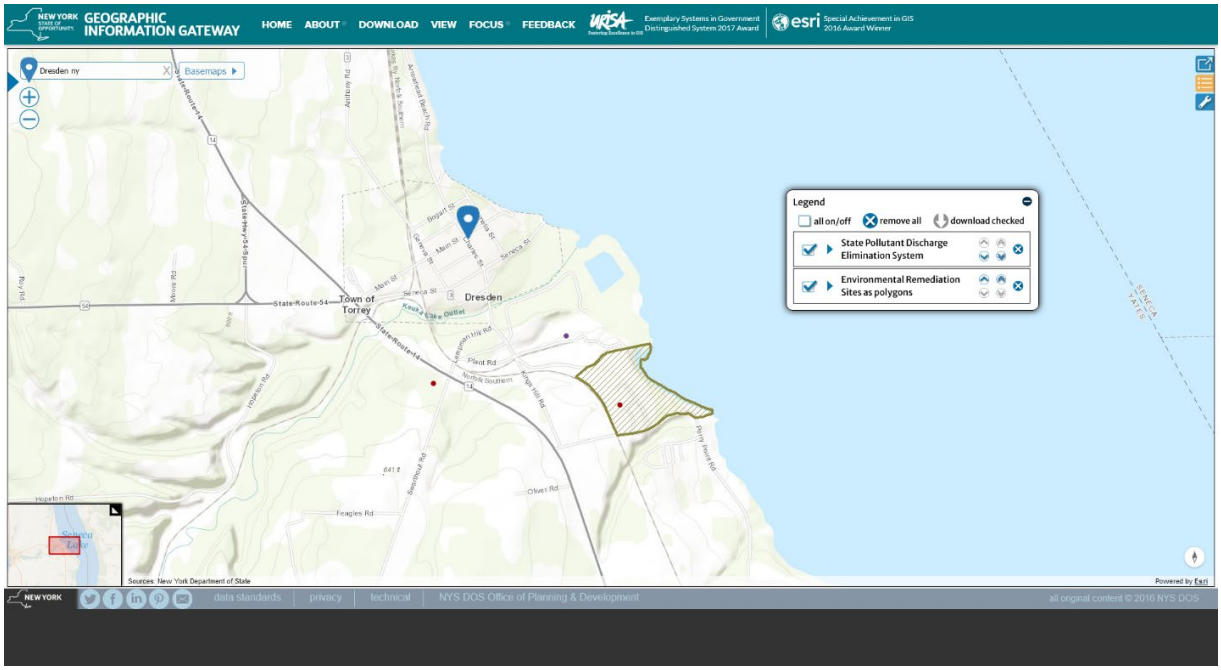
EAF Mapper Summary Report

Thursday, March 3, 2022 3:45 PM

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

Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 20 [Remediation Site]	Yes

2b. Remediation Sites



Environmental Site Remediation Database Search Details

Site Record

Document Repository

Site-related documents are available for review through the DECInfo Locator on line at DECInfoLocator

Administrative Information

Site Name: Mercury Aircraft
Site Code: 862006
Program: State Superfund Program
Classification: 02
EPA ID Number:

Location

DEC Region: 8
Address: Perry Point Road
City: Dresden Zip: 14441
County: Yates
Latitude: 42.67786841
Longitude: -76.94468349
Site Type: STRUCTURE
Estimated Size: 10 Acres

Site Owner(s) and Operator(s)

Current Owner Name: Ferro Corporation
Current Owner(s) Address: 1789 Transelco Drive
Penn Yann, NY, 14527
Current On-Site Operator: Mercury Aircraft
Stated Operator(s) Address: 17 Wheeler Avenue
Hammondsport, NY 14840

Site Document Repository

Name: TORREY TOWN HALL
Address: 56 GENEVA STREET
DRESDEN,NY 14441

Hazardous Waste Disposal Period

From: unknown **To:** present

Site Description

Location: The Mercury Aircraft site is located in a rural area on Perry Point Road off NY Route 14 in an industrial park in the Town of Torrey, Yates County, one mile southeast of the Village of Dresden. This site is bounded by RR tracks to the west, AES/NYSEG coal-fired electrical generating plant to the north, Ferro Corp. to the south and Seneca Lake, 800 feet to the east. Site Features: The Mercury Aircraft (MA) manufacturing facility was housed within a single building and is currently surrounded by Ferro Corp buildings which now owns the property and the surrounding industrial park. Maintained lawn areas are present over the TCE plume and the fractured bedrock trench which intercepts the TCE plume. Current Zoning/Use: Zoned industrial, Ferro Corp uses the former MA building for warehousing of technical-grade abrasives. Historical Uses: Between 1960s and 1996 when it ceased operation, the facility was involved in stamping and forming of sheet metal. Other nearby buildings were reportedly involved in production of hydrogen isotopes during WWII. In February 15-16, 1985, an estimated 300-500 gallons of trichloroethylene (TCE) spilled out of a vapor degreaser located in the building. The spilled solvents flowed into a sewer owned by the adjacent Transelco(now Ferro) Corp. This sewer is used for discharging wastewater from Transelco to nearby Seneca Lake. Spill cleanup, including reported recovery of 120 gallons of TCE, and sewer flushing was done shortly after the spill. A preliminary investigation completed in late 1990 identified chlorinated volatile organic compounds,including TCE in groundwater. An IRM (blasted bedrock trench), RI/FS, and RD/RA (pumping well) are described in the Environmental Assessment section. Site Geology and Hydrogeology: Clay-rich soils roughly 10 feet in thickness overlie dark shale bedrock of Middle Devonian age. Contamination extends over 100 feet into bedrock.

Contaminants of Concern (Including Materials Disposed)

Contaminant Name/Type
1,1,1-Trichloroethane(TCA)
ethylidene dichloride
PCE
1,1 dichloroethene
trichloroethene (TCE)
1,1,1-trichloroethane

Site Environmental Assessment

Soil, bedrock, and groundwater at this site are contaminated with chlorinated VOCs, primarily TCE, TCA, and breakdown products. An interior shallow well located near the TCE spill has routinely exceeded 600 ppm of TCE (approaching the solubility limit of 1100 ppm for TCE) and a deep bedrock well near the spill location showed DNAPL in fractures over 100 feet deep during drilling. The VOC contaminant plume extends laterally over 300 feet toward Seneca Lake and is over 150 feet in depth. In 1993, an Interim Remedial Measure (IRM) was implemented, consisting of a blasted bedrock trench (200 feet long by 65 feet deep) with two pumping wells. The IRM has successfully contained the shallow plume. Collected VOC-contaminated groundwater is treated by a batch system with an oxidant (H2O2) followed by an air stripper and UV treatment and discharged to Seneca Lake (system has been reliable and treats well below discharge limits). In 1998, a Remedial Investigation/Feasibility Study (RI/FS) further defined deeper contamination which extends 160 feet below ground. The 1999 Record of Decision (ROD) specified: 1) continued collection and treatment of contaminated shallow groundwater in the existing treatment system (IRM); 2) installation of a 6" diameter and 110 feet deep source area groundwater extraction well, and treating the extracted groundwater into the existing treatment system; 3) removal of contaminated sediments from the storm sewer manholes; 4) periodic sampling of selected on-and off-site monitoring wells; 5) deed notice/restrictions. The ROD requirements have been implemented and groundwater monitoring is ongoing. VI mitigation in the former Mercury building was implemented in January 2009 and appears effective based on pressure/communication testing. However, based on proximity to TCE source areas, an adjacent Ferro building may need VI assessment. VI report submitted in Summer 2020. Once VI is fully assessed/mitigated, an OM&M Plan/SMP is finalized, and deed retrictions are completed, site reclassification can occur.

Site Health Assessment

Private wells sampled in the area did not indicate the presence of site-related contaminants. The site is accessible, however, since there are no surface contaminants, exposure to soils by direct contact is not expected. NYSDOH and NYSDEC will request additional investigations to determine the potential for soil vapor intrusion into structures on or near the site.

2c. Structural Archaeological Assessment Form

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

STRUCTURAL ARCHAEOLOGICAL ASSESSMENT FORM (SAAF)
Supplement to the Joint Application Form

PART 1 – APPLICANT COMPLETES

APPLICANT INFORMATION

1. Applicant Name: Greenidge Generation

2. Applicant Address: 590 Plant Road
Dresden, NY 14441

PROJECT INFORMATION

3. Project/Facility Name: Cylindrical Wedgewire Screen Installation /Greenidge Generation

4. Project/Facility Location: 590 Plant Road
Dresden, NY 14441

5. Is the proposed project adjacent to, or does it contain a building or structure listed in the State or National Register of Historic Places? ☐ Yes ☒ No

6. Are there any buildings or structures 50 years old or older adjacent to or within the proposed project area? ☒ Yes ☐ No

If the answer to question 5 and /or 6 is yes, provide the following information for each building and structure (use attachments if necessary):

a. Name of structure: Greenidge Intake Pipe support structure

b. Location: The structure starts at 42.679976 N -76.947350 W and extends approximately 1830 ft NE to 42.683137 N -76.941869. The southwesterly 1200 linear ft are over land, and remaining 630 ft are above the surface of Seneca Lake.

c. Type of structure (ex. house, outbuilding, barn, bridge, dam, ruins): Wood pilings and structure

d. Approximate age or date of construction: 1953

7. Might the proposed project have any impact (physical/visual) upon any buildings or structures listed in the State or National Register of Historic Places or 50 years old or older? ☐ Yes ☒ No

If yes, describe briefly (use attachments if necessary):

APPLICANT SECTION CONTINUES ON REVERSE SIDE

8. Provide photographs of every building and structure that may be impacted by the project as described in number 7, on the opposite side of this page. The following standards are recommended:

- Minimum of 2 photographs
- Photographs must be 3.5" x 5" in size or larger
- Photos must be clear and focused
- Digital photographs must be printed on photo paper and be produced at a printer setting of a minimum of 600 dpi
- Clearly label photos so it is obvious what is being illustrated; key photos to map or plan, if possible
- Photo 1: show both the entire front and side of the structure in a single shot from as close to the building as possible. Be sure the structure is not partially or fully blocked by trees or other obstructions
- Photo 2: show relationship of building or structure to roadway or surroundings

9. Has the land within the proposed project area been previously disturbed or altered (excavated, landscaped, filled, utilities installed)? ■ Yes ☐ No

If yes, describe briefly, including depth of disturbance (use attachments if necessary):

Approximately 1200 ft of the structure are on land. During construction, excavation was necessary to maintain a level pipe and concrete footings were used to support wood structure. For the over-water portion (~630 ft) pilings were driven into the lake bottom.

10. Approximate percentage of proposed project area with slopes:

- 0-10% 99 %
- 10-15% 0 %
- 15% or greater 0 %

11. Approximate percentage of proposed project site with the following drainage characteristics:

- Well drained 99 %
- Moderately well drained 0 %
- Poorly drained 0 %

Prepared By (Print or type name): John Young

Signature: John Young Date: 3/17/22

[redacted]

PART 2 – DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) COMPLETES

APPLICANT/PROJECT INFORMATION

1.Applicant Name:

2. Project/Facility Name:

3. DEC Number:

BUILDINGS AND STRUCTURES

4. Might the proposed project have any impact (physical/visual) upon any buildings or structures listed in the State or National Register of Historic Places or 50 years old or older? ☐ Yes ☐ No

If yes, DEC must consult with the Office of Parks, Recreation and Historic Preservation (OPRHP). DEC must request a determination of eligibility for the State Register of Historic Places and/or comments regarding project impact. Include information supplied by the applicant in response to questions 5, 6, 7 and 8 of **Part 1** of this form.

ARCHAEOLOGICAL SITES

5. Does the proposed project area coincide with a circle, square or stippled area on OPRHP's Statewide Archaeological Inventory Map? ☐ Yes ☐ No

6. Is the proposed project area outside of a circle or square, but one for which information has been provided (ex: documented reports of known sites) that suggests the area is archaeologically sensitive? ☐ Yes ☐ No

If yes, what is the nature and source of information?

7. Is the proposed project area apparently undisturbed? ☐ Yes ☐ No

8. Will the proposed action include a physical disturbance of the project area? ☐ Yes ☐ No

9. Is the slope in the area characteristically less than 15% (unless on limestone/flint escarpments)? ☐ Yes ☐ No

DEC SECTION CONTINUES ON REVERSE SIDE

10. Is the proposed project area characteristically moderately well or well drained? ☐ Yes ☐ No

If the answers to 5, 7-10 are yes, an archeological survey should be performed by the applicant. Provide the applicant with a copy of or the link to the *State Historic Preservation Office Phase 1 Archaeological Report Format Requirements (08/05)*.

If the answer to 5 is no, but answers to 6-10 are yes, DEC must consult with OPRHP before requiring that the applicant perform an archaeological survey.

RESULTS OF EVALUATION

☐ SHPA-1 No buildings, structures or archaeological sites identified at the project location.

☐ SHPA-2 Buildings, structures or archaeological sites identified, but no impacts will occur, no survey required. No further cultural resources review required.

☐ Consultation by DEC with OPRHP required. ☐ Structures ☐ Archaeology

☐ Archaeological survey required.

Prepared by: Date:

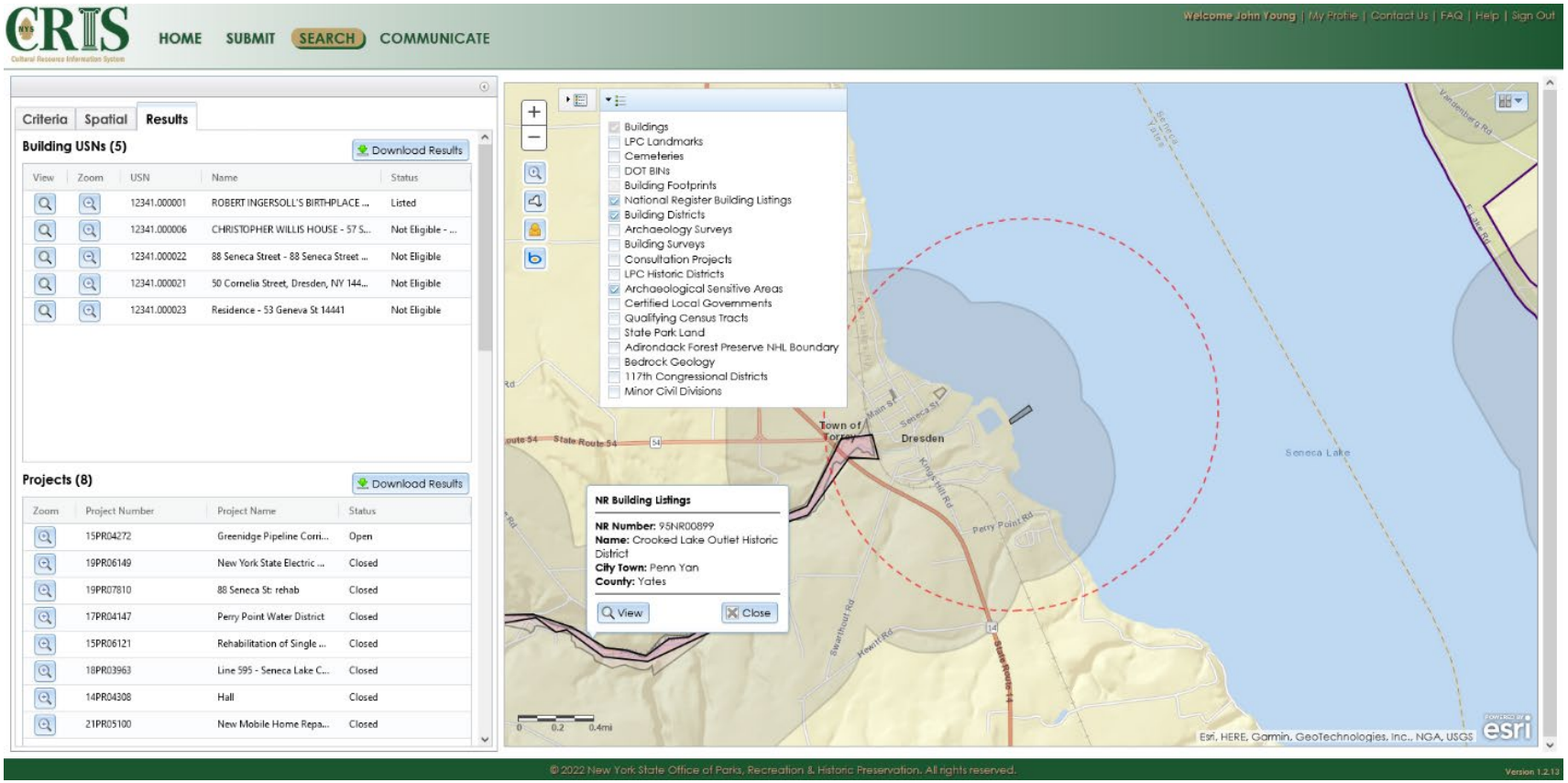
RESET PART 2

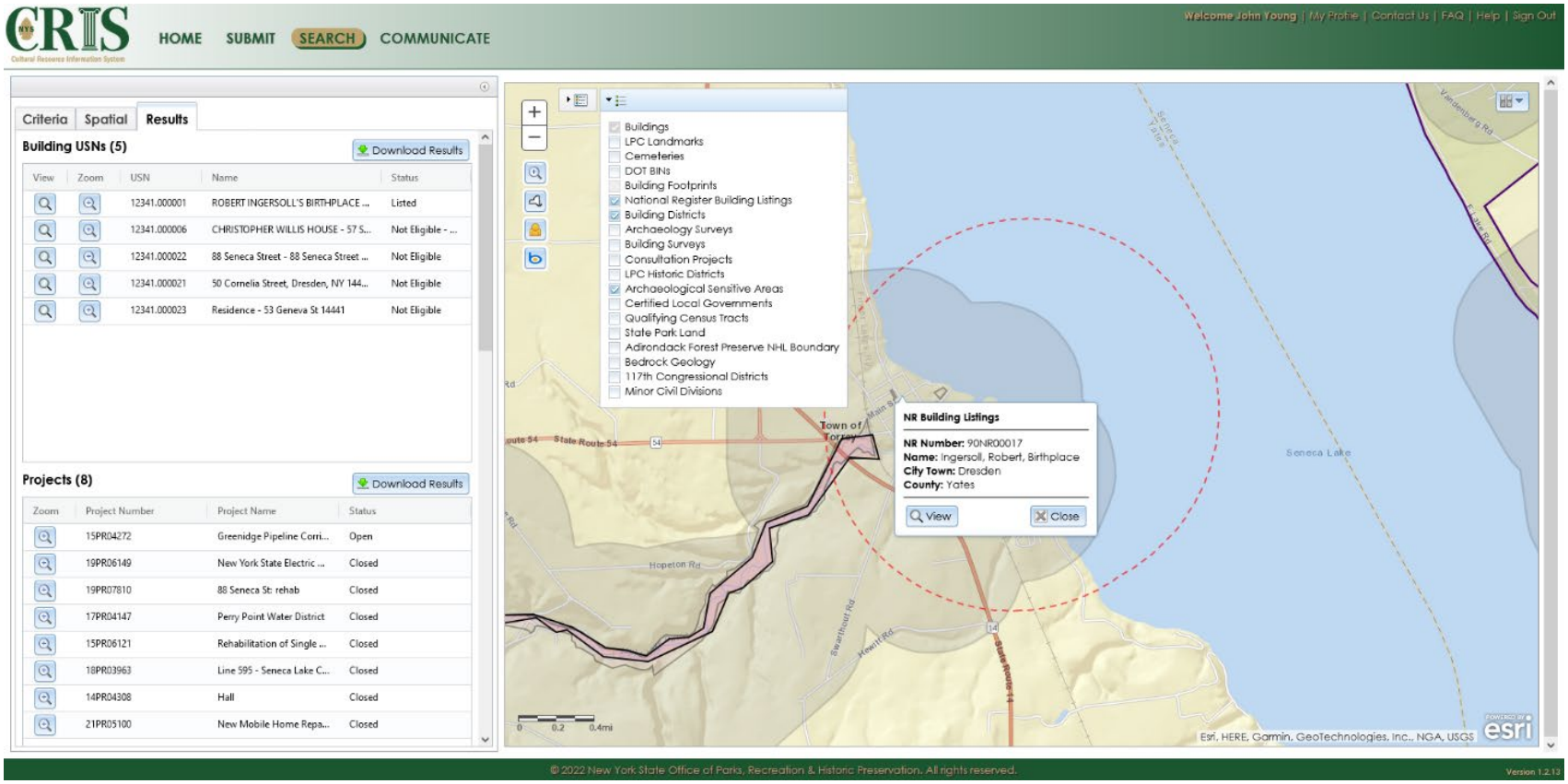
2d. Archaeological Sensitive Area

Archeological Sensitive Area

New York Cultural Resources Information System (CRIS) was searched for cultural resources within 1 mile of the project site. As indicated on the EAF, the site is within an area designated as an Archaeological Sensitive Area. Actual identified National Register sites within 1 mile of the project include the Crooked Lake Outlet Historic District 95NR00899, and the Robert Ingersoll birthplace 90NR00017.

Both sites are more than ½ mile from the project site and will not be impacted by any activities of the project, nor will the project be visible from these sites.


CRIS
HOME
SUBMIT
SEARCH
COMMUNICATE
Welcome John Young | My Profile | Contact Us | FAQ | Help | Sign Out
Criteria
Spatial
Results
Building USNs (5)
Download Results
View
Zoom
USN
Name
Status
12341.000001
ROBERT INGERSOLL'S BIRTHPLACE ...
Listed
12341.000006
CHRISTOPHER WILLIS HOUSE - 57 S...
Not Eligible - ...
12341.000022
88 Seneca Street - 88 Seneca Street ...
Not Eligible
12341.000021
50 Cornelia Street, Dresden, NY 144...
Not Eligible
12341.000023
Residence - 53 Geneva St 14441
Not Eligible
Projects (8)
Download Results
Zoom
Project Number
Project Name
Status
15PR04272
Greenidge Pipeline Corri...
Open
19PR06149
New York State Electric ...
Closed
19PR07810
88 Seneca St: rehab
Closed
17PR04147
Perry Point Water District
Closed
15PR06121
Rehabilitation of Single ...
Closed
18PR03963
Line 595 - Seneca Lake C...
Closed
14PR04308
Hall
Closed
21PR05100
New Mobile Home Repa...
Closed
Buildings
LPC Landmarks
Cemeteries
DOT BINs
Building Footprints
National Register Building Listings
Building Districts
Archaeology Surveys
Building Surveys
Consultation Projects
LPC Historic Districts
Archaeological Sensitive Areas
Certified Local Governments
Qualifying Census Tracts
State Park Land
Adirondack Forest Preserve NHL Boundary
Bedrock Geology
117th Congressional Districts
Minor Civil Divisions
NR Building Listings
NR Number: 95NR00899
Name: Crooked Lake Outlet Historic District
City Town: Penn Yan
County: Yates
View
Close
Town of Torrey
Dresden
Seneca Lake
State Route 54
Perry Point Rd
Knights Hill Rd
Swarthout Rd
Howell Rd
State Route 14
Main St
Seneca St
Esri, HERE, Garmin, GeoTechnologies, Inc., NGA, USGS
© 2022 New York State Office of Parks, Recreation & Historic Preservation. All rights reserved.
Version 1.2.13


CRIS
HOME
SUBMIT
SEARCH
COMMUNICATE
Welcome John Young | My Profile | Contact Us | FAQ | Help | Sign Out
Criteria
Spatial
Results
Building USNs (5)
Download Results
View
Zoom
USN
Name
Status
12341.000001
ROBERT INGERSOLL'S BIRTHPLACE ...
Listed
12341.000006
CHRISTOPHER WILLIS HOUSE - 57 S...
Not Eligible - ...
12341.000022
88 Seneca Street - 88 Seneca Street ...
Not Eligible
12341.000021
50 Cornelia Street, Dresden, NY 144...
Not Eligible
12341.000023
Residence - 53 Geneva St 14441
Not Eligible
Projects (8)
Download Results
Zoom
Project Number
Project Name
Status
15PR04272
Greenidge Pipeline Corri...
Open
19PR06149
New York State Electric ...
Closed
19PR07810
88 Seneca St: rehab
Closed
17PR04147
Perry Point Water District
Closed
15PR06121
Rehabilitation of Single ...
Closed
18PR03963
Line 595 - Seneca Lake C...
Closed
14PR04308
Hall
Closed
21PR05100
New Mobile Home Repa...
Closed
Buildings
LPC Landmarks
Cemeteries
DOT BINs
Building Footprints
National Register Building Listings
Building Districts
Archaeology Surveys
Building Surveys
Consultation Projects
LPC Historic Districts
Archaeological Sensitive Areas
Certified Local Governments
Qualifying Census Tracts
State Park Land
Adirondack Forest Preserve NHL Boundary
Bedrock Geology
117th Congressional Districts
Minor Civil Divisions
NR Building Listings
NR Number: 90NR00017
Name: Ingersoll, Robert, Birthplace
City Town: Dresden
County: Yates
View
Close
Seneca Lake
Town of Torrey
State Route 54
Hopeton Rd
Hewitt Rd
Esri, HERE, Garmin, GeoTechnologies, Inc., NGA, USGS
esri
© 2022 New York State Office of Parks, Recreation & Historic Preservation. All rights reserved.
Version 1.2.13