

Stream Restoration and Mitigation Plan

Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson, and Smithfield
Madison County, New York

Matter No. 23-00038

Prepared for:



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1.0 INTRODUCTION

Hoffman Falls Wind LLC (the Applicant), a subsidiary of Liberty Renewables Inc., plans to file a Section 94-c Siting Permit Application for the Hoffman Falls Wind Project, a major renewable energy facility, with the Office of Renewable Energy Siting (ORES) pursuant to Section 94-c of the New York State Executive Law. As detailed further below, the construction of the Hoffman Falls Wind Project will require the installation of new crossings of State-regulated waterbodies.

This Stream Restoration and Mitigation Plan (the Plan) was prepared to provide on-site, in-kind mitigation for these new crossings in accordance with the requirements of Title 19 New York Codes, Rules and Regulations (19 NYCRR) §900-2.14(b)(7) and §900-10.2(f)(3). The information presented in this Plan will be developed in more detail and submitted as a pre-construction compliance filing as required by 19 NYCRR §900-10.2(f)(3) prior to the start of construction.

1.1 Project Overview

The Applicant is constructing an up to 100-megawatt (MW) wind energy generation facility and associated necessary infrastructure (the Facility) in the Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County, New York. The proposed Facility is sited within a collection of privately owned parcels encompassing approximately 3,987 acres of land that is primarily rural in nature (the Facility Site). Associated support facilities will include an underground medium voltage collection system, gravel access roads, a permanent meteorological (MET) tower, an aircraft detection lighting system (ADLS) tower, temporary construction laydown areas, a temporary concrete batch plant, an operations and maintenance (O&M) facility, a medium voltage-to-transmission voltage collection substation, a point of interconnection (POI) switchyard, and a short 115kV overhead gen-tie line that will connect the Facility to the high voltage electrical grid.

1.2 Site Description

The Facility Site occurs primarily within the Chenango and Oneida HUC 8 sub-basins (USGS Hydrological Units 02050102 and 04140202, respectively), which span portions of Broome, Chenango, Cortland, Lewis, Madison, Oneida, Onondaga, Oswego, Tioga, and Tompkins Counties. The Facility is located in the northeastern portion of the Chenango watershed and in the southern portion of the Oneida watershed. Total annual precipitation in the region (from 2003 to 2023) averages 45.15 inches at the nearby Sherburne weather station in Chenango County, New York (NOAA, 2024), located approximately 17 miles south of the Facility Site.

Wetlands and streams within the Facility Site were delineated between May and November 2023. Streams are common and dispersed throughout the Facility Site. Most streams within the Facility Site ultimately drain northwest to Oneida Creek and Chittenango Creek within the Oneida watershed. For more information on wetlands and streams within the Facility Site, see the Wetland Delineation Report (Appendix 14-A).

2.0 ACTIVITIES REQUIRING MITIGATION

2.1 Unavoidable Impacts to State Regulated Streams

Gravel access roads that are necessary to construct and operate the Facility cross federally regulated and state-regulated streams in a number of locations. As discussed in detail in Exhibit 13, these crossings have been sited in

the location of existing crossings to the greatest extent practicable and the Applicant has otherwise worked to avoid and minimize impacts to state-regulated waterbodies within the Facility Site. However, four new permanent crossings of state-regulated streams 23-ST005, 33-ST013, 33-ST010, and 33-ST011 are unavoidable. All four streams are Class C(T) and are tributaries to Oneida Creek, which is located within the Oneida watershed.

2.2 Mitigation Requirements

As outlined in 19 NYCRR §900-2.14(b)(7) in the 94-c regulations, the four new permanent crossings proposed by the Applicant are allowed, but mitigation is required. In accordance with these regulations, this mitigation must be accomplished through replacing one existing substandard culvert for each new crossing with a culvert designed in accordance with 19 NYCRR §900-6.4(r)(6). Substandard culverts are those with a significant barrier to aquatic organism passage and/or those that cannot pass a four (4) percent design flow event. As detailed in 19 NYCRR §900-2.14(b)(7), the required mitigation must occur within the same HUC 8 sub-basin, and within a waterbody that is subject to NYS Department of Environmental Conservation (NYSDEC) jurisdiction under Environmental Conservation Law Article 15 and of the same standard of the impacted water(s) (NYSDEC, 1993).

3.0 MITIGATION

3.1 Proposed Mitigation Locations and Existing Conditions

To identify potential mitigation sites, a desktop review was conducted within the Facility Site based on the following criteria:

- The potential mitigation site must be located within the Oneida watershed.
- The site must contain State-regulated Class C(T) stream(s) and/or state-regulated wetland(s) hydrologically connected to a Class C(T) stream.
- The applicable streams and/or wetlands must be crossed by an existing culvert that is a significant barrier to aquatic organism passage and/or cannot pass a four (4) percent design flow event.
- Installation of a replacement culvert at the site must be technically feasible and cannot result in significant disturbance to other existing sensitive resources.
- The site must be accessible for mitigation activities and subsequent monitoring.

Within the Facility Site, the Applicant identified four viable mitigation sites that potentially meet these criteria. However, to verify that the existing culverts meet the criteria for mitigation, field surveys will occur prior to the finalization of the Stream Restoration and Mitigation Plan. The locations of these potential mitigation sites are identified in Figure 1 and existing conditions are summarized below.

Mitigation Site 1

Mitigation Site 1 is located at an existing farm road crossing of state-regulated stream 23-ST005 (perennial) and state-regulated wetland 66-W011 (PEM, PFO, PSS) in the Town of Fenner (Figure 1). Stream 23-ST005 is a Class C(T) tributary to Oneida Creek and drains portions of wetland 66-W011. The existing crossing utilizes dual culverts and is likely a barrier to aquatic passage and/or is not capable of passing a four percent design storm event.

As this potential mitigation site is located along an existing farm road, the site is readily accessible. Installation of a replacement culvert in this location would result in only minimal impacts to upstream and downstream portions of

the channel and would benefit both the state-regulated stream as well as the state-regulated wetland. This potential mitigation site has been reviewed by the Applicant's engineering team and construction of the mitigation project appears to be technically feasible. Prior to the finalization of the Stream Restoration and Mitigation Plan, this potential mitigation site will be visited by biologists and reviewed by the Applicant's engineering team to confirm whether this site meets the criteria set forth in 19 NYCRR §900-6.4(r)(6).

Mitigation Site 2

Mitigation Site 2 is located west of County Route 25 in the Town of Smithfield, where state-regulated stream 33-ST013 (intermittent) is crossed by a recently relocated east-west oriented farm road and dairy lane (Figure 1). The existing culvert is likely not capable of passing a four percent design storm event.

As this potential mitigation site is located along an existing farm road, the site is readily accessible. Installation of a replacement culvert in this location would result in only minimal impacts to upstream and downstream portions of the channel and would benefit the state-regulated stream. This potential mitigation site has been reviewed by the Applicant's engineering team and construction of the mitigation project appears to be technically feasible. Prior to the finalization of the Stream Restoration and Mitigation Plan, this potential mitigation site will be visited by biologists and reviewed by the Applicant's engineering team to confirm whether this site meets the criteria set forth in 19 NYCRR §900-6.4(r)(6).

Mitigation Site 3

Mitigation Site 3 is located east of County Route 25 in the Town of Smithfield, where state-regulated stream 33-ST010 (perennial) is crossed by an existing east-west oriented farm road (Figure 1). Stream 33-ST010 corresponds with Oneida Creek, a state-regulated Class C(T) stream located within the Oneida sub-basin. The existing crossing is likely a barrier to aquatic passage.

As this potential mitigation site is located along an existing farm road, the site is readily accessible. Installation of a replacement culvert in this location would result in only minimal impacts to upstream and downstream portions of the channel and would benefit the state-regulated stream. This potential mitigation site has been reviewed by the Applicant's engineering team and construction of the mitigation project appears to be technically feasible. Prior to the finalization of the Stream Restoration and Mitigation Plan, this potential mitigation site will be visited by biologists and reviewed by the Applicant's engineering team to confirm whether this site meets the criteria set forth in 19 NYCRR §900-6.4(r)(6).

Mitigation Site 4

Mitigation Site 4 is located east of County Route 25 in the Town of Smithfield, where state-regulated stream 33-ST011 (perennial) is crossed by an existing east-west oriented farm road (Figure 1).¹ Stream 33-ST011 is a Class C(T) tributary to Oneida Creek. It is anticipated that the existing crossing is likely a barrier to aquatic passage and/or is not capable of passing a four percent design storm event.

As this potential mitigation site is located along an existing farm road, the site is readily accessible. Installation of a replacement culvert in this location would result in only minimal impacts to upstream and downstream portions of the channel and would benefit the state-regulated stream. This potential mitigation site has been reviewed by the Applicant's engineering team and construction of the mitigation project appears to be technically feasible. Prior to the finalization of the Stream Restoration and Mitigation Plan, this potential mitigation site will be visited by biologists and reviewed by the Applicant's engineering team to confirm whether this site meets the criteria set forth in 19 NYCRR §900-6.4(r)(6).

3.2 Proposed Mitigation Activities

At each of the proposed mitigation sites, the Applicant will replace the existing substandard culvert(s) with a new culvert that will be designed to comply with 19 NYCRR §900-6.4(r)(6), to the extent applicable. Tree clearing to facilitate culvert installation will be minimized to the extent practicable. In addition, as required in 19 NYCRR §900-6.4(r), the installation of the replacement culvert would be completed under dry conditions. As all four culvert replacement projects cross Class C(T) streams (i.e., cold-water fisheries) it is anticipated that construction activities would be completed between June 1 and September 14. During periods of work activity, flow will be diverted around the coffer-dammed worksite and flow immediately downstream of the work site will be maintained at a volume equal to that immediately upstream of the work site. If measures fail to divert all flow around the work area, in-stream work shall stop until dewatering/pump-around measures are functioning properly. In-stream work, including the installation of the culvert and bed material, will not result in an impediment to aquatic organisms. All fish trapped within cofferdams will be netted and returned, alive and unharmed, to the water outside the confines of the cofferdam, in the same stream.

Immediately upon completion of grading and backfilling, all areas of soil disturbance above the ordinary high water mark (OHWM) will be stabilized and seeded with a seed mix appropriate to the site and mulched with straw. Mulch will be maintained until suitable vegetation cover is established. Destroyed bank vegetation will be replaced with appropriate native shrubs, live stakes, and/or tree plantings as site conditions allow, as appropriate.

¹ Note: the location of this crossing is approximately 25 feet north of the Wetland Study Area (WSA) for the Hoffman Falls Wind Project. Although the crossing in question was not delineated, there is clear evidence that stream 33-ST011 flows north out of the WSA and under an existing farm road at the proposed mitigation site. The approximated portions of stream 33-ST011 discussed herein and shown in Figure 1 are directly tied to reaches that were delineated, as well as the NYSDEC's mapping of this Class C(T) tributary to Oneida Creek.

The mitigation projects outlined in this Plan will be coordinated with U.S. Army Corps of Engineers (USACE) to ensure all applicable federal standards are met and incorporated into the final design and pre-construction compliance filings developed by the Applicant. Potential impacts to Waters of the United States resulting from the completion of these projects will be included in the Applicant's Pre-Construction Notice to the USACE and are anticipated to be permitted through the USACE's Nationwide Permit Program.

4.0 PERFORMANCE STANDARDS

Culvert replacements will comply with all performance standards designated in 19 NYCRR §900-6.4(r)(6), to the extent applicable.

5.0 POST-CONSTRUCTION MONITORING

Mitigation sites will be inspected in accordance with the Applicant's Facility Maintenance and Management Plan to ensure the culverts are maintained in proper working condition. Should any blockages or other issues be identified, repairs will be prompt and conducted in accordance with the applicable requirements of the Facility Maintenance and Management Plan.

6.0 REFERENCES

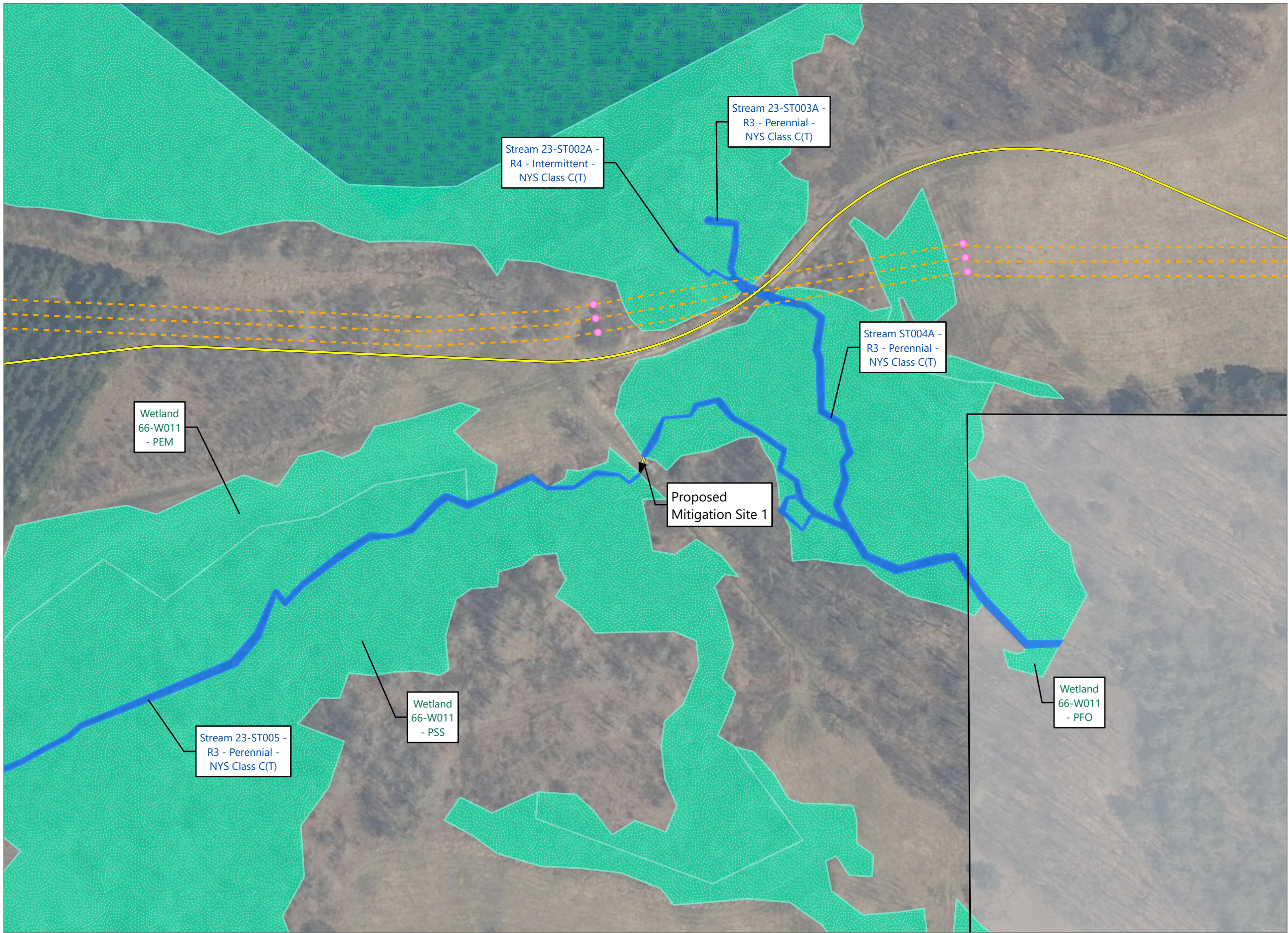
National Oceanic and Atmospheric Administration (NOAA). 2024. *Temperature and Precipitation Summary for Sherburne NY, 2003-2023*. NOAA Regional Climate Center. Available at: <http://agacis.rcc-acis.org/> (Accessed January 2024).

New York State Department of Environmental Conservation (NYSDEC). 1993. *Freshwater Streams Regulation Guidelines on Compensatory Mitigation*. Available at: https://www.dec.ny.gov/docs/wildlife_pdf/wetmitgdln.pdf (Accessed January 2024).

Office of Renewable Energy Siting. *Regulations Chapter XVIII, Title 19 of NYCRR Part 900*. New York State Executive Law § 94-c. Available at: <https://ores.ny.gov/regulations> (Accessed January 2024).

FIGURES

Figure 1. Potential Stream Mitigation Sites

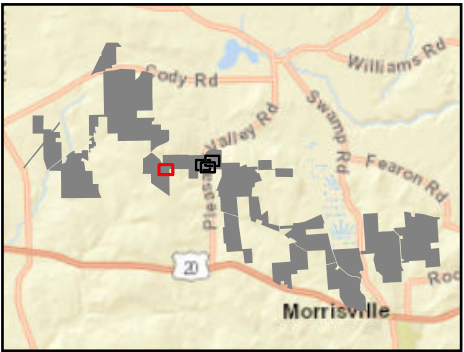


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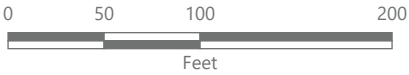
Towns of Eaton, Fenner, Nelson and
Smithfield, Madison County,
New York

Stream Restoration and Mitigation Plan

- Culvert
- Delineated Stream
- Delineated Wetland
- Approximate Wetland
- Facility Components
 - Trenchless Installation
 - Access Road
 - Collection Line
 - Facility Site

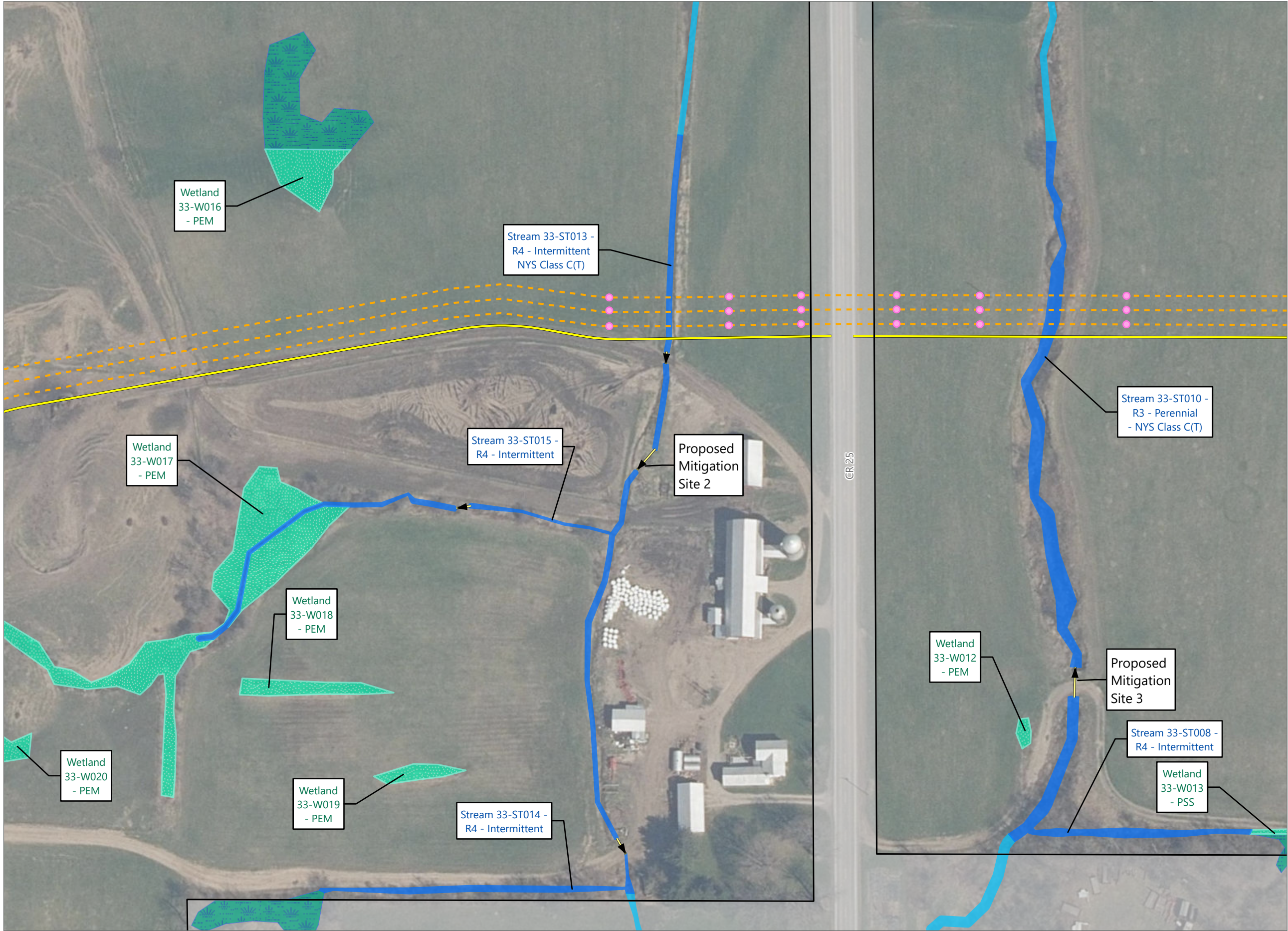


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Basemap: NYSDOP "2022" orthoimagery map service

Figure 1. Potential Stream Mitigation Sites

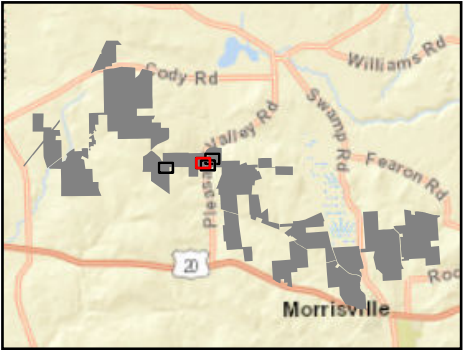


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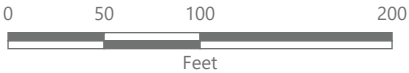
Towns of Eaton, Fenner, Nelson and
Smithfield, Madison County,
New York

**Stream Restoration and
Mitigation Plan**

- ➡ Culvert
- Blue line Delineated Stream
- Green stippled area Delineated Wetland
- Solid green area Approximate Wetland
- Blue dashed line Approximate Stream
- Facility Components
 - Pink dot Trenchless Installation
 - Yellow line Access Road
 - Dashed orange line Collection Line
 - Black box Facility Site

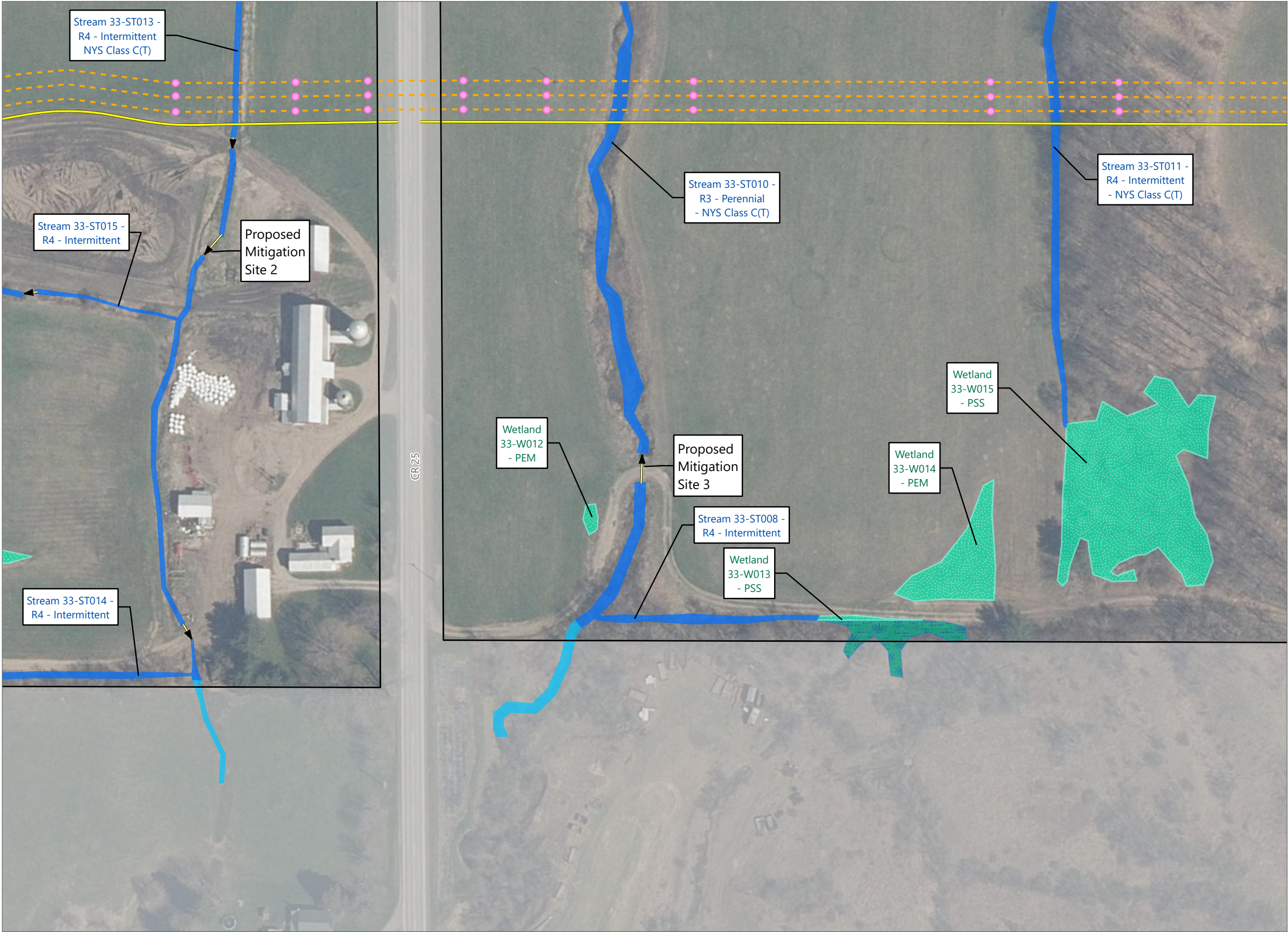


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Figure 1. Potential Stream Mitigation Sites

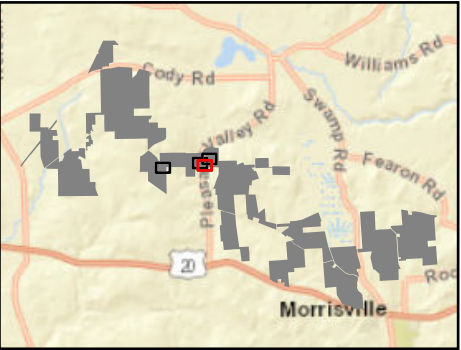


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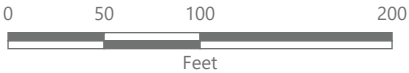
Towns of Eaton, Fenner, Nelson and Smithfield, Madison County, New York

Stream Restoration and Mitigation Plan

- Culvert
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- Delineated Wetland
- Approximate Wetland
- Approximate Stream
- Facility Components
 - Trenchless Installation
 - Access Road
 - Collection Line
 - Facility Site



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Figure 1. Potential Stream Mitigation Sites

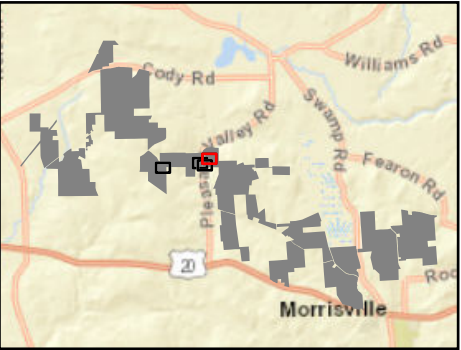


**Hoffman Falls
Wind Project**

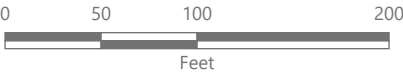
Towns of Eaton, Fenner, Nelson and
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**Stream Restoration and
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- ➡ Culvert
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 - Access Road
 - - - Collection Line
 - Facility Site



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