Permittee-Responsible Mitigation Plan for the Oak Orchard Wastewater Treatment Industrial Treatment Train and Conveyance Corridor

at the Fish Creek Restoration Site

Town of Shroeppel, Oswego County New York

Prepared For:

HGS, LLC, a wholly owned subsidiary of Resource Environmental Solutions, LLC

Prepared By:

HGS, LLC, a wholly owned subsidiary of
Resource Environmental Solutions, LLC
14 Jupiter Way, Suite 7
Albany, New York 12205

November 2025 –
US Army Corps of Engineers Permit No. LRB-2024-01037
New York State Department of Environmental Conservation Application No: 7-3124-00018
New York State Department of Environmental Conservation Application No: 7-3124-00018

TABLE OF CONTENTS

1.0 Introduction 5
2.0 Objectives 6
3.0 Site Selection and Congruence with Watershed Needs 9
3.1 Site Selection Methods and Justification 9
3.2 Oneida Watershed Needs 9
4.0 Site Protection Instrument(s) 11
5.0 Baseline Data 12
5.1 Land Use 12
5.2 Geology and Soils 12
5.3 Environmental Resource Identification 13
5.3.1 Wetland 13
5.3.1.1 Hydrology 13
5.3.1.2 Vegetation 14
5.3.1.3 Soils 14
5.3.2 Streams 14
5.4 Rare, Threatened and/or Endangered Species 14
5.5 Cultural Resources 15
6.0 Mitigation Work Plan 15
6.1 Mitigation Approaches and Benefits 15
6.1.1.1 DEC Restoration 16
6.1.1.2 Wetland Enhancement (DEC and USACE) 16
6.1.1.3 Upland Enhancement (DEC) 17
6.2 Construction Sequence 18
7.0 Maintenance Plan 19
8.0 Performance Standards 20
9.0 Monitoring Requirements 21
9.1 As-Built Report 21
9.2 Annual Monitoring Reports 21
10.0 Long-Term Management 23
11.0 Adaptive Management 23
12.0 References 25

LIST OF TABLES

Table 1: Site Location Information
Table 2: Impact and Mitigation Summary
Table 3: Site Impairment Summary
Table 4: Ecological Inventories
Table 5: Land Use
Table 6: Soils
Table 7: Identified Resources
Table 8: Restoration Summary
Table 9: Monitoring Requirements
Table 10: Performance Standards
Table 11: Monitoring Requirements

LIST OF APPENDICES

Appendix A: Figures

Figure 1A: Impact Location
Figure 1B: Project Location: Fish Creek Restoration Site (FCRS)
Figure 2: HUC-8 Watershed
Figure 3A: Existing Conditions – State
Figure 3B: Existing Conditions - Federal
Figure 3C: Delineated Aquatic Resources
Figure 4A: Ecological Inventory-
Figure 5A: 2001 National Land Cover
Figure 5B: 2011 National Land Cover
Figure 5C: 2021 National Land Cover
Figure 6A: 1956 Historic Aerial Imagery
Figure 6B: 1960 Historic Aerial Imagery
Figure 6C: 1972 Historic Aerial Imagery
Figure 6D: 2021 Extant Aerial Imagery
Figure 7: Soil Survey
Figure 8: Topography
Figure 9 FEMA Flood Hazards
Figure 10: Post Restoration Resource Development
Figure 11: Temporary Wetland Impacts
Figure 12: Invasive Species Coverage
Figure 13: Hobo Logger Well Placement

Appendix B: Site Protection Instrument

Appendix C: Agency Coordination

Appendix D: Design Plan

Appendix E: Representative Site Photos

Appendix F: Preliminary Jurisdictional Determination Report

1.0 Introduction

HGS, LLC (Agent) a wholly owned subsidiary of Resource Environmental Solutions (RES)(Permitee), has created a Permittee-Responsible Mitigation (PRM) Plan to compensate for impacts to state and federally regulated wetlands associated with the development of the Industrial Treatment Train and Conveyance corridor at the Oak Orchard Wastewater Treatment facility located at 4300 Oak Orchard Road, Town of Clay, Onondaga County, New York (Project). RES has prepared this PRM Plan in accordance with Title 33 of the Code of Federal Regulations Part 332 – Compensatory Mitigation for Losses of Aquatic Resources, Public Notice Announcing the Compensatory Mitigation Guidelines and Mitigation Checklist for Review of Mitigation Plans for the U.S. Army Corps of Engineers - New York District issued in January 2005, and Article 24 Freshwater Wetlands Act. The PRM Plan will require approval from the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Army Corps of Engineers (USACE).

The proposed PRM Plan will offset impacts to palustrine scrub-shrub (PSS) and palustrine forested (PFO) wetlands within the Oneida (HUC-8 04140202) watershed. The 14.22-acre off-site PRM will be established at the Fish Creek Restoration Site (FCRS). Site location, distance from impact site, and watershed information can be found in Table 1 below and in Appendix A: Figures 1, and 2.

Table 1: Site Location Information

PRM Site	Watershed (HUC-8)	Watershed (HUC-12)	County	Town	Coordinates	Address	Distance from Project
Fish Creek Restoration Site (FCRS)	Oneida 04140202	Lake Temalo-Fish Creek 041402020904	Onondaga	Shroeppel	43.25720, -76.26380	274 Peter Scott Rd, Pennellville, NY 13132	4.6 miles

Figure 2: HUC-8 Watershed Map identifies the 8-Digit Hydrologic Unit Code (HUC) watershed encompassing the Project and PRM Sites. The Figures 3A and Figure 3B, FCRS's Existing Conditions for both State and Federal, display the location of the PRM Site and show notable features surrounding the PRM Site, including NYSDEC wetlands and streams, U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) wetlands, and United States Geological Survey flow lines.

Proposed mitigation efforts at the PRM Sites will offset impacts to wetlands resulting from the Project. Mitigation activities will provide the following ecological benefits:

- restoration and enhancement of wetland resources
- improved stormwater retention/attenuation
- improved hydrology
- improved habitat
- improved vegetative diversity
- improved biogeochemistry
- removal of invasive species
- permanent protection

The Agent and the Permittee request to be contacted prior to visiting the PRM Site to allow for landowner notification.

The Agent, acting on behalf of the Permittee, will be responsible for implementing the PRM Plan in addition to meeting performance standards, and performing monitoring, and management of the PRM Site.

2.0 Objectives

The Project will result in impacts to federal and/or state regulated wetlands. Wetland mitigation will be provided to offset all impacts to federal and state regulated resources associated with the Project and will satisfy the requirements set forth by NYSDEC and USACE. Table 2 quantifies the impact, ratio, and mitigation based on the requirements outlined in Article 24 of the New York Environmental Conservation Law, and within the DEC provided ratio table for micron related actions in the Notice of incomplete application for DEC permit 7-3124-00018 and 7-3124-00615.

The proposed methods of compensatory mitigation include wetland restoration within an upland, enhancement within an existing degraded wetlands, and enhancement within an existing upland buffer as allowable in Article 24 of the New York Environmental Conservation Law. Specifically, the Agent applied the NYSDEC memorandum "Freshwater Wetlands Regulation Guidelines on Compensatory Mitigation" (NYSDEC 1993) which sets forth certain recommendations for conducting compensatory mitigation in the state of New York. This memorandum includes but is not limited to the following specific applicable provisions:

- The preferred order of compensatory mitigation is wetland restoration, then creation, and finally enhancement;
- Restoration means reclaiming a degraded wetland to bring back one or more functions that have been partially or completely lost by such actions as filling or draining.
- Restoration is probably most applicable when off-site mitigation is used to replace some or all of the wetland functions impacted by the proposed project; and
- There are no mandated ratios for replacing lost wetland acreage, but replacement on at least a 1:1 basis is desirable.

To promote consistency between agency mitigation definitions as the mitigation site will fulfill both NYSDEC and USACE requirements, restoration within an upland will be used interchangeably with re-establishment as defined in 33 CFR Part 332 as "the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource." Restoration results in the gain of wetland area and function.

Ultimately, the overall objective of the PRM Site is to offset the unavoidable loss of PSS and PFO wetland area, and/or function. Restoring upland areas adjacent to wetland habitat will promote no net loss of wetland area while simultaneously improving wetland function. Enhancement activities will improve select functions of an existing wetland or adjacent area to promote further ecological uplift and implement the necessary cover types. Table 2 quantifies the impact, ratio, and mitigation generated based on the requirements outlined in Article 24 of the New York Environmental Conservation Law and 33 CFR Part 332 - Compensatory Mitigation For Losses Of Aquatic Resources.

Table 2a: Impact and Mitigation Summary									
Impact Type	**Impact (Acres)**	**Replacement Ratio**	**Mitigation Units Needed**	**Agency**	**Agency Mitigation Approach[1]**	**Mitigation Site**	**Mitigation Site Acres**	**Mitigation Ratio**	**Mitigation Units Generated**
Oak Orchard Wastewater Treatment Plant- Industrial Treatment Train									
Permanent PSS	0.79	2	1.58	DEC	Restoration	Fish Creek	1.58	1	1.58
				Total	**Total**	**-**	**1.58**	**-**	**1.58**
Adjacent Area	3.29	-	-	DEC	Upland Enhancement	Youngs Creek	1.80	-	1.80
						Fish Creek	1.86	-	1.86
				Total	**Total**	**-**	**3.29**	**-**	**3.29**
Oak Orchard Wastewater Treatment Plant Expansion- Conveyance Corridor									
Permanent Conversion - PFO	3.70	2	7.40	DEC	Enhancement to PEM	Youngs Creek	5.35	4.5	1.19
				USACE/DEC	Enhancement	Fish Creek	2.90	3	0.96
				USACE/DEC	Ag Enhancement	Fish Creek	5.28	2	2.64
				USACE/DEC	Restoration	Fish Creek	2.69	1	2.69
				USACE	Re-Enhancement	Fish Creek	1.58	1	1.58
Total	**3.70**	**Total**	**7.40**		**Total**	**-**	**16.35**	**-**	**7.40**

*Please note that 1.58 acres of the Restoration at Fish Creek is Satisfying the 1.58 mitigation units needs from the NYSDEC only Permanent impacts from the WWTP-ITT and also 1.58 mitigation credits for USACE for the impacts at WWTP CC.

Table 2b: NYSDEC Impact Calculation Summary				
Project	**Impact**	**Impact Area**	**Impact Ratio**	**Mitigation Credits needed**
Oak Orchard WWTP Industrial Treatment Train	Permanent Fill- PSS	0.79	2	1.58
Oak Orchard WWTP Industrial Treatment Train Totals		0.79		1.58
Oak Orchard WWTP Conveyance Corridor	Permanent Conversion-PFO	3.7	2	7.40
Oak Orchard WWTP Conveyance Corridor Total		3.7		7.40
Joint Totals		4.49		8.98
			NYSDEC Total Credit Need	**8.98**

Table 2c: Impact Calculation Summary				
Project	**Impact**	**Impact Area**	**Impact Ratio**	**Mitigation Credits needed**
Oak Orchard WWTP Conveyance Corridor	Permanent Conversion-PFO	3.7	2	7.40
Oak Orchard WWTP Conveyance Corridor Total		3.7		7.40
			USACE Total Credit Need	**7.40**

Table 2d. NYSDEC Enhancement Summary			
Approach	**Acres**	**Mitigation Ratio**	**Mitigation Credits Generated**
Fish Creek Restoration Site			
Restoration PFO	4.27	1	4.27
Ag Enhancement to PFO	5.28	2	2.64
Enhancement to PFO	2.90	3	0.96
Adjacent Area Buffer	1.86	-	-
Total	14.33	-	7.87
Youngs Creek Restoration Site			
Enhancement PEM	5.35	4.5	1.19
Preservation PFO	0.47	0	
Adjacent Area Buffer	1.80	-	-
Upland Preservation	0.63	-	
Youngs Creek Total	8.25	-	1.19
Joint Total	**22.58**	-	**9.06**

Table 2e. USACE Enhancement Summary			
Approach	**Acres**	**Mitigation Ratio**	**Mitigation Credits Generated**
Fish Creek Restoration Site			
Restoration PFO	4.27	1	4.27
Ag Enhancement to PFO	5.28	2	2.64
Enhancement to PFO	2.90	3	0.96
Adjacent Area Buffer	1.86	-	-
Total	14.33	-	7.87

3.0 Site Selection and Congruence with Watershed Needs

3.1 Site Selection Methods and Justification

The Permittee has explored multiple mitigation options to compensate for the proposed impacts resulting from the Project. As mitigation bank and in-lieu fee credits are not available for the totality of the Project and onsite mitigation was not feasible, the Permittee determined that permittee-responsible off-site mitigation within the same watershed was the most conducive and ecologically beneficial mitigation option.

In accordance with the applicable state and federal requirements, the site selection process for off-site mitigation locations prioritizes the long-term, self-sustaining ecological suitability of the site to provide the desired resource improvements using a watershed-based approach. The factors that were considered in the selection of the PRM Site include the following:

- Hydrological conditions, soil characteristics, vegetative characteristics, and other physical characteristics.
- Compatibility with adjacent land uses and watershed management plans.
- Watershed-scale features, such as aquatic habitat diversity, habitat connectivity, and other landscape-scale functions.
- The size and location of the compensatory mitigation site relative to hydrologic sources and other ecological features.
- Reasonably foreseeable effects that compensatory mitigation may have on ecologically important aquatic or terrestrial resources (e.g., shallow sub-tidal habitat, mature forests), cultural sites, functions and services, or habitat for federally- or state-listed threatened and endangered species; and
- Other relevant factors including, but not limited to, development trends, anticipated land use changes, habitat status and trends, local or regional goals for the restoration or protection of habitat types or functions (e.g., re-establishment of habitat corridors or habitat for species of concern), water quality goals, and floodplain management goals.

Additional key factors that were considered in determining the site selection include:

- the location within the sub-watershed;
- continuity with state and federal wetlands or streams;
- fulfilling mitigation needs within large, scalable, ecologically beneficial locations;
- the extent of degradation, disturbance, and restoration feasibility
- the restoration activities and potential effects to neighboring properties; and
- Co-location with previously approved mitigation projects.

Selecting large and contiguous sites supports the establishment of self-sustaining ecosystems as the risk of failure is drastically reduced from inputs outside site boundaries.

A comprehensive land search was initiated in May 2024. The land search covered many properties that meet initial geospatial analysis criteria in the applicable watersheds. Many of the landowners were unwilling to lose desirable land or participate in a restoration project. Some interested landowners permitted preliminary site visits for biologists, ecologists, and restoration experts to evaluate restoration potential. Evaluated properties that were not desirable and/or did not meet the restoration criteria were abandoned.

Both of the PRM Sites were ultimately selected because:

- Together they fulfilled all the site selection/restoration objectives within the HUC-8 watershed
- the landowners were willing to participate
- no significant constraints or existing encumbrances were encountered
- the landscapes positions optimizes long-term resiliency;
- and the continuity with adjacent watershed features maximizes self-sustainable mitigation and ecological uplift potential.

The existing conditions of the Fish Creek Restoration Site (FCRS) make it an attractive mitigation site, as resources within the proposed PRM Site exhibit significant degradation from agriculture and historic forestry/vegetation manipulation. Swales were installed to dewater historic wetlands within and adjacent to the PRM Site. Uplands that were historically likely wetland have increased wetland habitat fragmentation within FCRS. Over time, the palustrine emergent wetland area has been reduced and exhibits little vegetative diversity, consisting primarily of purple loosestrife (*Lythrum salicaria*), reed canary grass (*Phalaris arundinacea*) and phragmites (*Phragmites australis*). The palustrine scrub shrub wetland and palustrine forested wetland predominantly include invasive multiflora rose (*Rosa multiflora*), and bush honeysuckle species (*Lonicera spp.*). Several smaller swales and tractor tire ruts exist throughout the existing uplands within the PRM Site. Years of agricultural manipulation have left the hydrologic regime highly impaired.

Additionally, the vegetation at the PRM Site has been highly modified. Historically, forested areas were cleared to create open space for agriculture. The FCRS was periodically mowed, graded and has been row cropped for as long as we have historical imagery. This has prevented forest succession. Currently, one of the two dominant woody species exhibiting growth is green ash (*Fraxinus pennsylvanica.*). Even though it is a pioneer species, ash species exhibit high mortality due to the emerald ash borer. Restoration actions would accelerate the successional processes toward a healthy, mature forest. The herbaceous vegetation primarily includes invasive and prolific species such as phragmites, purple loosestrife, and reed canary grass. The woody vegetation is predominantly comprised of native species such as arrow wood viburnum (*Viburnum dentatum*), nannyberry (*Viburnum lentago*), and winterberry *(Ilex verticillata*) invasive species such as multiflora rose and bush honeysuckle comprise a decent amount of the woody composition as well. The existing vegetative community lacks robust biodiversity with non-native species encroachment, consisting of mostly one (herbaceous) stratum that lacks large woody carbon retention in the wetland system.

The above stressors have created a degraded wetland system where targeted restoration actions would improve the wetland functions and values. The site-specific impairments for wetlands and streams are summarized in Table 3 below.

Table 3b: Fish Creek Restoration Site Impairment Summary		
Site Specific Impairments		
Issue 1	**Issue 2**	**Issue 3**
Hydrologic Modification (Ditching/Swales)	Vegetation Modifications (Historic Agricultural Disturbances)	Invasive Species

3.2 Oneida Watershed Needs

The PRM Site is situated in the Erie-Ontario Lowlands physiographic province, which exhibits a mix of land uses from forestry to agriculture. The PRM Site is in proximity to several Significant

Natural Communities and NYS land as shown in Figure 4: Ecological Inventory. Notable features within a 5-mile radius of the PRM Site are also outlined in Table 4 below.

Table 4: Ecological Inventories	
NYNHP (5 Mile Radius)	
Name	Description
Igloo road wood	Silver maple-ash swamp

The Oneida watershed has a mixed urban and rural land use, with heavy influence from agricultural practices and industry expansion which has resulted in ongoing water quality degradation and loss of wetland habitat throughout the watershed. Land cover within and surrounding the PRM Site is primarily agricultural (pasture/hay,) (Appendix A, Figure 5: National Land Cover Dataset Map Series).

The existing and proposed resources provide an opportunity to support many watershed goals and continue the legacy of restoration work in the larger watershed. The PRM Site sits in the Oneida Watershed, nestled in the Oswego River Watershed. The stream, that the wetland complex is ties into is Fish Creek. This creek is a tributary for the main stem of the Oneida River, which confluences with the Seneca River to form the Oswego River. Fish Creek is a classified C stream, and is only appropriate for fisheries and non-contact recreational activities. The main stem of the Oneida river is a class B waters and is appropriate for fisheries, swimming and other recreational activities. The Oswego River flows into Lake Erie and was designated by the EPA as an Area of Concern, before being delisted in 2006, due to the improvements made by the local communities. The Central New York Regional Planning & Development Board (2004) identified multiple issues within the Oneida Lake Watershed including water quality degradation sources such as nutrient input, sedimentation, and invasive species. Wetlands have been recognized as being under threat from de-watering or conversion to upland and have been a focus of conservation efforts within the watershed.

In 2018, the New York Natural Heritage Program released the New York State Riparian Opportunity Assessment. The model identifies and prioritizes sites for riparian restoration. The model also scores the environmental stress and health based of each HUC-8. In the Oneida River HUC-12 (041402020905), the major ecological stressors include Topographical Wetness Index, Dam retention, and Landscape Conditions. For Ecological Health, the HUC scored low in the health of floodplain complexes and river connection, indicating that there is room for improvement and opportunity for wetland restoration in riparian adjacent areas.

Mitigation at the PRM Sites will apply a holistic approach that targets the restoration and enhancement of wetland resources to a larger, more contiguous floodplain and bottomland hard wood forest providing optimal ecological uplift of aquatic resources over existing conditions. The mitigation approach will improve habitat, restore hydrologic/biogeochemical processes, attenuate runoff, and improve downstream water quality, while promoting the propagation of native species over invasive species. These objectives support the local watershed goals. The PRM Site will be permanently protected, and will contribute to the health and resiliency of biological communities and aquatic resources within the watershed.

4.0 Site Protection Instrument(s)

A Site Protection Instrument (SPI) in the form of a Conservation Easement, will be executed to permanently protect the PRM Site. The SPI will be executed in advance of the proposed activities outlined in the PRM Plan and will be recorded within 60 days with the Onondaga County Clerk's

Office following NYSDEC and USACE approval. A Conservation Easement template provided by USACE Buffalo District is included in Appendix B: Site Protection Instrument. The SPI restricts activities that are incompatible with the objectives of the PRM Plan.

5.0 Baseline Data

A suite of baseline data has or will be collected to inform the site-specific mitigation approach. Baseline investigations completed or to be completed include:

- Land use characterization
- Soil characterization
- Wetland delineation and watercourse identifications
- Boundary surveys
- Topographical surveys
- Geotechnical investigations
- Vegetative community characterizations
- Rare, threatened and/or endangered species consultation
- Cultural resource review
- Watershed research
- Photo and field note documentation

The following sections present the findings of the baseline data review. The data was used to guide the proposed restoration approaches described in Section 6.0. Mitigation Work Plan.

5.1 Land Use

Historically, the region surrounding the PRM Sites were heavily used for agriculture and forestry (Appendix A, Figure 6A-6D: Historic Aerial Imagery Series). The land within and surrounding the YCRS has sustained damage from cattle activity and agriculture for many years, resulting in the degradation and loss of aquatic resources. The land within and surrounding FCRS has sustained damadge from agricultural practices for many years. A land use summary is provided in Table 5a and Table 5b below for the PRM Sites. Mapping is also provided in Appendix A, Figure 5C: YCRS2021 National Land Cover, and Figure 5F: FCRS 2021 National Land Cover.

Table 5: Fish Creek Restoration Site Land Use				
Cultivated Crops (%)	Hay/Pasture (%)	Woody Wetlands (%)	Emergent Herbaceous Wetlands (%)	Developed Space (%)
12%	37%	23%	11%	17%

5.2 Geology and Soils

The PRM Site is located within the Erie-Ontario Lowlands physiographic province of New York (USGS 2023). The Erie-Ontario Lowlands consist of low and flat areas underlain with marine clays and limestone which occasionally outcrop along the lake shore. The entire province is underlain by sedimentary rock, including dolostone, limestone, and sandstone.

Based on the United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS) Web Soil Survey, the table below provides the soil mapping unit series for the PRM Site (NRCS 2023). The approximate extents of these soil mapping units are provided in Figure 7: Soil Survey. The soils found within the PRM Site are predominately non-hydric in nature but contain hydric inclusions. The parent material of all soils throughout the site is silty and clayey glaciolacustrine deposits. The dominant soil type throughout the PRM Site is somewhat poorly

drained. Soils within the PRM Site present ideal conditions to target restoration of the existing upland and wetland.

A summary of the soil series within the PRM Site is summarized in Table 6 below.

Table 6: Fish Creek Restoration Site Soils				
Unit	**Landform**	**Drainage Class**	**Hydric Rating**	**Site %**
Cd – Canandaigua mucky silt loam	Depressions	Poorly drained	Predominantly Hydric	99.0
HuC –Hudson silt loam, 6 to 12 percent slopes	Lake plains	Moderately well drained	Predominantly Non-Hydric	1.0

5.3 Environmental Resource Identification

Wetland and watercourse investigations were conducted to identify the extent of wetlands and watercourses within the PRM Site as elaborated in Appendix F: Preliminary Jurisdictional Determination Report. Results from the investigations are summarized below, and mapping of identified features is provided in Figure 3C: Delineated Aquatic Resources. Detailed descriptions, data forms, photographs and additional mapping are included in the Preliminary Jurisdictional Determination Report(s) provided in Appendix F.

Table 7: Fish Creek Restoration Site Identified Resources			
Resource	**Class**	**Existing Acres/Footage[1]**	**Proposed Acres/Footage[1]**
Wetland	PEM	8.18	0.00
	PSS	7.16	7.16
	PFO	2.15	14.60
	Total	**17.49**	**21.76**
Upland	UPL	10.63	7.82
Site Acreage		29.58	29.58

Additionally, Figure 8: Topography highlights the topographic contours and elevations used to aid in the delineation. A FEMA (Flood Emergency Management Agency) floodway map is also provided in Appendix A: Figure 9: FEMA Flood Hazards. FEMA floodplains were not identified within the PRM Site (FEMA 2011).

5.3.1 Wetland

The PRM Site contains 17.49 acres of wetland within a larger wetland complex. There have been 8.18 acres of PEM wetlands identified, 7.16 acres of PSS wetlands identified and 2.15 acres of PFO wetlands identified. Table 7: Identified Resources provides a breakdown of the acreage of the wetlands within the PRM Site. Figure 3C: Delineation Map shows the location of the wetlands within the PRM Site. Additional information is provided in the wetland delineation report provided as Appendix F: Preliminary Jurisdictional Determination Report.

5.3.1.1 Hydrology

The hydrology sources for the existing wetlands consists of direct precipitation, upslope runoff and groundwater influenced. The areas identified for wetland restoration exhibit hydrologic manipulation through historic agricultural practices. Ditching and filling of these areas have disconnected historic stream bed and allowed the propagation of upland and invasive species.

Wetland restoration activities will improve hydrologic retention and allow for a diverse native flora to establish.

5.3.1.2 Vegetation

Much of the existing vegetation found within the PRM Site consists of invasive emergent wetland species such as reed canary grass, purple loosestrife, and phragmites. Additionally, the PRM site largely consists of woody generalist species such as multiflora rose and bush honeysuckle. Interspersed throughout are native wetland plants such as woolgrass (Scirpus cyperinus), boneset (Eupatorium perfoliatum) and various sedge species (Carex spp.). Wetland plants often associated with agricultural practices such as goldenrod species (Euthamia spp. and Solidago spp.) are also scattered throughout the PRM Site. Within the emergent wetland and upland areas, the approximate aerial cover of invasive vegetation ranges from 40-60%, consisting of purple loosestrife, multiflora rose, phragmites, and reed canary grass. The wetland area along Stream-1 has an approximate aerial cover of invasive emergent vegetation that ranges from 50-60%, consisting of purple loosestrife, multiflora rose, bush honeysuckle and reed canary grass, as well as concentrated segments of 70-80% phragmites (Appendix A, Figure 12: Invasive Species Coverage). Invasive species will be managed during the monitoring period, through invasive species control and native species reseeding. Native shrubs and trees will be planted throughout the PRM Site to promote vegetative diversity and further outcompete invasive species. The targeted post-construction condition will be a heterogenous, native vegetative community containing multiple vegetative strata.

5.3.1.3 Soils

The soils within the PRM Site are silt-dominated and have been impacted through historic agricultural practices including farm machinery. The geotechnical analysis indicated buried hydric soils within the upland areas proposed for restoration. In upland grading areas, uncovering buried wetland soils will allow hydrophytic vegetation to adequately access subsurface hydrology and promote wetland development in the upland areas. As the soils at the site are clay-dominated and contain hydric inclusions, the soils are suitable for the proposed restoration actions.

5.3.2 Streams

On the Eastern edge of the conservation area there are two ditches that connect the parcel to Fish Creek. These ditches are adjacent to PEM enhancement within the PRM Site. Two other ditches run along Sutton road and Peter Scott road within the Conservation area. These ditches are no hydrologically connected to any streams. The only stream segments that are within the proposed conservation area, are stream S-1 which is Fish Creek and starts and ends in the Northeastern corner of the conservation boundary..

5.4 Rare, Threatened and/or Endangered Species

The Agent conducted environmental due diligence for the PRM Site on October 31, 2025, and was issued a USFWS Project Code (2026-0011038). The USFWS Information for Planning and Consultation (IPaC) results indicate the potential presence of Indiana bat (IB) (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), tricolored bat (*Perimyotis subflavus*), Bog Buck Moth (*Hemileuca maia menyanthevora (=H. iroquois)),* and Monarch Buttefly (*Danaus Plexippus*). The Northeast Determination Key (DKey) was completed to determine the potential impacts to the species. The results have not yet been provided. As soon as they are delivered to the Permitee from USFW, those documents will be sent to the proper agencies. Currently, no tree removal is

proposed. If tree removal becomes necessary time of year restrictions will be followed, where no trees are cut from April 1st through September 30th.

In regard to the threatened and endangered insects results, Bog Buck Moth is only found to enhabit calcareous fens where its primary host plant the bogbean (*Menyanthes trifoliata*) grows. Considering there is no peat accumulation onsite, and the bogbean has not been identified onsite, the possibility of impacts to this species is improbable. Monarch butterflies are listed as proposed threatened.

A desktop review using the Environmental Resource Mapper (ERM) indicated a known location for threatened or endangered bat species within the PRM Site. The Agent will proceed with formal consultation with NYSDEC regarding these species (Appendix C: Agency Coordination).

5.5 Cultural Resources

A consultation through New York's State Historic Preservation Office Cultural Resource Information System (CRIS) was initiated on October 31, 2025. Confirmation of submission is available in Appendix C: Agency Coordination.

6.0 Mitigation Work Plan

6.1 Mitigation Approaches and Benefits

The goal of the mitigation approach is to convert 4.27 acres of upland to new wetland habitat, and restore and enhance an additional 8.16 acres of wetland habitat and 0.69 acres of upland adjacent buffer area. Mitigation actions will target specific deficiencies within the restoration and enhancement areas relating to hydrology, vegetation, and/or soil to improve the functions and values of the expanded, existing wetland, and adjacent areas. The objective is to restore a diverse hydrologic regime, repair wetland soil health, reduce habitat fragmentation, and create a diverse and natural wetland, buffered by upland vegetative community that is both self-sustaining and resilient.

The primary ecological stressor at the PRM Site is the historic and recent agricultural practices, historic filling and the introduction of invasive species, which have resulted in the loss or degradation of wetland habitat. The goal of the PRM Site is to restore and enhance multiple wetland functions that have been lost or impaired within the degraded floodplain complex and create a self-sustaining, resilient, and highly functioning wetland ecosystem.

The activities proposed across the PRM Site will accelerate ecological succession, induce habitat heterogeneity, improve nutrient retention, attenuate stormwater runoff, reduce downslope erosion, and improve water quality. Woody plantings and surface microtopographic variance will promote carbon retention and slow water, restoring the natural carbon cycle in the system and improving hydrologic storage. Over a longer temporal scale, the induced successional processes will provide a diverse mosaic of forested, and scrub-shrub vegetative habitat, with forest-dominant sections as detailed in the planting plan in Appendix A Figure 10: Post-Restoration and Appendix D: Design Plans. Targeted invasive species treatment will restore the native floral community. As the PRM Site develops, the establishment of native species through plantings and seedings in tandem with invasive species control will improve the floral communities' resilience to invasive species encroachment. Furthermore, the PRM Site will be permanently protected by a SPI.

Mitigation approaches and locations within the PRM Site are shown in Appendix A Figure 10: Resource Development. Specific details and specifications are provided in Table 8 and Appendix D: Design Plans.

6.1.1.1 DEC Restoration/ USACE Re-Establishment

Wetland restoration in upland areas is the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Wetland restoration in upland areas results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions. The proposed restoration in upland areas will result in a 50% increase in wetland area over the lost wetland area at the impact site.

The wetland restoration in the upland areas will take place along the current southern most PEM wetlands. The restoration will connect the linear PEM wetland in the middle of the southern fileld to the PEM wetlands that encroach the crop land and buffer the PSS wetlands around the boundary of the conservation easement area. Grading activities will occur throughout the linear wetland and will tie into the surrounding PEM wetland areas, ensuring the grade is at advantageous and ground water will reach the elevation to ensure wetland hydrology. In the restoration area, installation of microtopography and habitat pools will increase water retention from direct precipitation and groundwater influence. At the final proposed surface elevation in the grading area, the topsoil will be installed to induce a microtopographic surface profile consisting of hummocks and depressions for hydrologic variability on the surface to promote hydrophytic vegetative diversity. In addition to the installation of microtopographic variance, larger and deeper habitat pools will be installed. The purpose of the habitat pools will be to collect a greater amount of water that will be more resistant to water depletion in response to climatic variability and act as natural refugia for aquatic fauna utilizing the wetland. Large woody debris will be installed in both habitat pools and the surface with the goal to create habitat features and increase surface roughness to reduce stormwater runoff and improve biogeochemical cycling.

Historically, agricultural practices altered the topography through the addition of fill at the PRM Site to drain water and promote row crop production. Within the PRM Site, historic manipulation for row crop production led to the accumulation of sediment through runoff and direct filling to remove wetland hydrology. The excavation of the accumulated sediment will expose the historically buried wetland soils for improved water retention and plant root interaction with wetland hydrology. Excavation practices will leave uncompacted soils at the surface and subsurface to promote water retention and anaerobic soil conditions. During excavation, any existing swales in the upland areas will be removed to improve water retention. After the final surface elevation has been achieved and microtopography, habitat pools, and large woody debris have been installed, a diverse and native hydrophytic vegetation seeding and planting effort will take place as detailed in the planting plan in Appendix A Figure 10: Post-Restoration and Appendix D: Design Plan. The restoration area will have 1.58 acres of planting geared towards shrubs and 2.69 acres geared towards larger woody plantings.

Excess fill material will be removed and stabilized with seed adjacent to the PRM Site. A temporary cover crop seed mix will be spread over the stockpile material to promote erosion and sediment control. The stockpile will be designed to be outside of the 100-foot buffer from any existing wetlands to avoid the placement of fill within a regulated adjacent area.

6.1.1.2 Wetland Enhancement (DEC and USACE)

The enhancement area will involve the improvement of select functions in the existing wetland area. Enhancement at the PRM Site will target the uplift of the vegetative community over existing conditions. The goal is to reduce current invasive species coverages which range from 30-80% to 5% (10% including cattail species) or less at the end of the monitoring period. In addition, enhancement activities will establish a forested wetland habitat to offset the loss of forested habitat

at the impact site. A portion of the wetland enhancement will also offset the loss of adjacent upland area at the impact site. Mitigation actions will include the control of invasives species and native seeding and plantings to promote heterogenous forest habitat. Invasive species control will be most intensive during the first two to three years of the project. Invasive species control practices will apply a targeted, spot-control treatment on species such as reed canary grass, brown knapweed, and purple loosestrife during the timeframe applicable for those species. A cut-stump method will be used for woody invasives such as multiflora rose. In tandem with invasive species control, the seeding and woody planting will increase biodiversity and restore the wetland to the desired cover types as detailed in Appendix A Figure 10B: Post-Restoration and Appendix D: Design Plan.

The existing forested wetland areas have been degraded by historic forest clearing to create and maintain cattle pasture. The current forested stands offer limited habitat and exhibit invasive species encroachment. These areas will be enhanced through supplemental native planting and seeding consistent with the planting plans located in Appendix D: Design Plan, C-900. In addition, it will receive targeted invasive species treatment.

In the enhancement area, wetland seeding and planting will accelerate ecological succession. Native species planting and seeding will stabilize soils, induce habitat heterogeneity, improve nutrient retention, attenuate stormwater runoff, reduce riparian shear stresses, and improve water quality. Woody plantings will promote carbon retention to restore the natural carbon cycle in the system. Over a longer temporal scale, natural vegetative succession will expand forested and scrub-shrub habitat and add to the existing woody stands south of the YCRS. As the site matures, it will reduce habitat fragmentation and mitigate forest decline. As the PRM Site develops, the establishment of native species through plantings and seedings will improve the floral community's resilience to invasive species encroachment.

6.1.1.3 Upland Enhancement (DEC)

The enhancement area will involve the improvement of select functions in the existing adjacent upland areas. Enhancement at the PRM Site will target the uplift of the vegetative community over existing conditions, with the goal of reducing current invasive species coverage, and increasing buffer to the mitigation wetlands. The current range for invasive species in adjacent upland areas is 0-80%, and through control of invasive species, and native seeding the upland enhancement area will decrease to 10% or less at the end of the monitoring period. The mitigation activities will promote heterogenous forest habitat and will offset the loss of wetland adjacent habitat at the impact site. Invasive species control will be most intensive during the first two to three years of the project. Invasive species control practices will utilize targeted spot-control treatment on species such as brown knapweed and Eurasian pasture grasses during the timeframe applicable for those species. A cut-stump method will be used for woody invasives such as multiflora rose. In tandem with invasive species control, the seeding and woody planting will increase biodiversity and restore the wetland to the desired cover types as detailed in Appendix A Figure 10B: Post-Restoration and Appendix D: Design Plan.

In the enhancement area, native upland seeding and planting will improve native habitat and accelerate ecological succession. Native species planting and seeding will stabilize soils, induce habitat heterogeneity, improve buffering capacity for surrounding wetlands, and promote carbon retention to restore the natural carbon cycle in the system. Over a longer temporal scale, natural vegetative succession will expand forested habitat and as the site matures, it will reduce habitat fragmentation and mitigate forest decline. As the PRM Site develops, the establishment of native

species through plantings and seedings will improve the floral community's resilience to invasive species encroachment.

Table 8: Restoration Summary						
Restoration Type	Scope	Specifications				
		Grading	Long-Term Protection	Invasive Control	Woody Plantings	Herbaceous Seeding
Restoration (DEC)	Re-establishing a former wetland.	Yes	Yes	Yes	Yes (600 stems*/acre)	Yes (5 lbs/acre)
Wetland Enhancement for Forest Conversion (DEC/USACE)	Restoring select functions of an existing wetland.	No (except in areas necessary for wetland restoration)	Yes	Yes	Yes (600 stems*/acre)	Yes (5lbs/acre)
Adjacent Upland Enhancement (DEC)	Restoring select functions of an existing adjacent upland area.	No (except in areas necessary for wetland restoration)	Yes	Yes	Yes (600 stems*/acre)	Yes (5lbs/acre)
*A stem(s) is defined as one individual and not branching of stems for a single individual.						

6.2 Construction Sequence

Construction efforts will occur concurrently or in advance of the Project's impacts. Upon initial mobilization, access, staging, and E&S controls will be installed according to approved Erosion & Sediment Control Plans that will be submitted to the NYSDEC separately for review and authorization. In general, construction will begin from upslope/upstream hydrologic sources and proceed to the downslope terminus of the grading area. During construction, water may be pumped around in sequence to create a drier work environment and to control erosion and sedimentation if required.

Excavation and clearing will then proceed downslope. Material excavated will be used to fill existing ditches or those areas designated for filling, such as on-site stockpile locations to be determined(Appendix D: Design Plan, C300). Large woody debris material will be locally sourced or imported onto the PRM Site. Random installation of woody debris will provide microtopographic variation to create diverse, heterogeneous habitat across the PRM site.

As sections are completed and targeted grades are achieved, they will be top-dressed with topsoil. Newly constructed wetlands and uplands will then be seeded with permanent native seed and temporary cover crop, and straw or E&S matting will be installed to stabilize the disturbed ground. Finally, woody material will be planted during an appropriate planting window (Spring/Fall).

Upon construction completion, access and staging will be removed and restored to existing grade. The access and staging will then be strawed and seeded with a native vegetation mix for stabilization. The remaining E&S controls will be removed when permanent vegetation is successfully established. Invasive species control will occur during site construction and throughout the maintenance and monitoring period. The intensity and method of invasive control will depend on the repropagation of specific invasive species after construction and will be assessed during the monitoring and maintenance phase. Invasive species control is discussed in more detail in Section 7.0.

The proposed restoration activities will result in temporary impacts to aquatic resources. The wetlands will be restored using a New York-specific wetland seed mix and planted as detailed in the Design Plan (Appendix D: Design Plans C902). The Design Plan accounts for temporary access roads for site ingress and egress (Appendix D: Design Plans C700) which is expected to result in

1.75 acres of temporary impact to the wetlands through 1.67 acres of impact due to grading and 0.08 acres of impacts from the access road. No permanent impacts will occur due to the PRM Site.

7.0 Maintenance Plan

The PRM Site will be monitored and maintained by the Agent, as described in Section 9.0: Monitoring Requirements.

Annual maintenance will be documented in the annual monitoring reports along with a discussion of any anticipated maintenance activities that will be needed the following year. In general, two to three site visits will be conducted annually during the first 3 years to monitor the PRM Site for invasive species and planting success and implement annual maintenance needs.

Maintenance will be heaviest during the first 3 years, and will entail manual invasive control, along with two or three chemical control events. For the rest of the PRM Site life-cycle, maintenance efforts will focus on controlling pockets of invasive species that may still be present and monitoring for the establishment of new stands of invasive species. Control methods will address the individual species as they are found. The Agent projects that by the fourth and fifth years, the intensity of management efforts required will drop off significantly as the native plant community stablishes and becomes resilient to encroachment of invasive species. The Agent may also perform deer deterrent applications and supplemental plantings on an as needed basis throughout the maintenance and monitoring period to combat herbivory or mortality and encourage the successful development of the PRM Site. The monitoring requirements and proposed timeline are listed and described in Table 9 below.

Table 9: Monitoring Requirements																			
Parameters					Monitoring Year														
Resource Type	Restoration Type	Monitoring Method	Quantity	Sampling Parameters	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Wetlands	**Restoration**	**Wetland Assessment**	**1 per acre of wetland restoration** (3 fixed plot, 1 randomized plot)	Tree/sapling and shrub stratum (20'x20') sampling (woody planting areas only)	X	X	X	X	X		X		X		X		X		X
				Herb stratum sampling (5'x5')	X	X	X	X	X		X		X		X		X		X
				Photo documentation (4 total N, S, E, W)	X	X	X	X	X		X		X		X		X		X
				Soil Sample	X	X	X	X	X		X		X		X		X		X
		Wetland Delineation	**Reestablished wetlands**	One Full Wetland Delineation according to USACE EMP V.2 Regional Supplement			X		X		X		X		X		X		X
Wetland/Upland	**Enhancement**	**Wetland/Upland Assessment**	**1 per acre of wetland or upland enhancement** (4 fixed plot, 3 randomized plot)	Tree/sapling and shrub stratum (20'x20') sampling (woody planting areas only) Herb stratum sampling (5'x5') Photo documentation (4 total N, S, E, W)	X	X	X	X	X		X		X		X		X		X

*Randomized plots will be re-randomized for each monitoring event. Fixed plots will remain unchanged throughout the monitoring period.

8.0 Performance Standards

NYSDEC and USACE will apply best professional judgment, visual observations, and monitoring reports to evaluate attainment of performance standards and to determine whether part or all

of the PRM Site has successfully met the conditions of the PRM Plan. The proposed performance standards are listed and described in Table 10 below.

Table 10: Performance Standards

Performance Standard*	Wetland		Upland
	Enhancement Forest	Restoration Shrub	Enhancement Forest
Native perennial hydrophyte plant coverage will be at least 65 percent by the end of the first growing season, 80 percent by the end of the second growing season, and at least 90 percent each monitoring year thereafter.	Yes	Yes	No
Invasive Species Performance Standard Wetland: Invasive plant coverage (species identified in NYCRR Part 575) will not exceed 20 percent by the end of the first growing season, 15 percent by the end of the second growing season, and 10 percent each monitoring year thereafter (reflected as the cumulative average of invasive plants species). Wetland areas will have less than 5% relative cover of all non-Typha invasive plant species. Due to the difficulty of distinguishing the three (3) species of cattails (Typha latifolia, Typha angustifolia, and Typha x glauca), the total relative cover of all Typha spp. will be less than 10%. After the first monitoring event, EPA/Corps will consider non-native or cryptogenic species to be invasive if it comprises 10% or more relative cover of the mitigation site. Plants that meet this definition will be considered invasive for the remainder of site management.	Yes	Yes	No
Invasive Species Performance Standard Upland: Invasive plant coverage (species identified in NYCRR Part 575) will not exceed 20 percent by the end of the first growing season, 15 percent by the end of the second growing season, and 10 percent each monitoring year thereafter (reflected as the cumulative average of invasive plants species).	No	No	Yes
Prevalence Index shall be less than or equal to 3.0 and hydric soils shall be documented in the wetland restoration/reestablishment by the end of the monitoring period.	No	Yes	No
Hydrology Performance Standard: The site is inundated (flooded or ponded) or the water table is ≤12 inches below the soil surface for ≥14 consecutive days during the growing season at a minimum frequency of 6 years in 10 (>50% probability). Any combination of inundation or shallow water table is acceptable in meeting the 14-day minimum requirement. Short-term monitoring data may be used to address the frequency requirement if the normality of rainfall occurring prior to and during the monitoring period each year is considered.	No	Yes	No
Forested Areas Performance Standard: A minimum of 600 native, live, and healthy (disease and pest free) woody plants per acre of which at least 200 are tree species at least 2.5 meters in height will be present in areas designated as forested habitat at the end of the monitoring period. Stems per acre are counted as each individual and does not include branching of the same individual.	Yes	No	Yes
A post-construction re-delineation will be completed by the fifth monitoring year and demonstrate that PSS and PFO impacts have been adequately off set.	No	Yes	No

**Performance will be based on the average of all monitoring plots established site wide.*

9.0 Monitoring Requirements

The Agent will monitor the PRM Site to inspect the condition of the PRM Site and to demonstrate attainment of the Performance Standards.

9.1 As-Built Report

An as-built report will be submitted to NYSDEC and USACE within 60 days following completion of construction including the initial planting. The as-built report will describe in detail the work performed and provide a list of species planted. The as-built report shall provide a depiction of finished grades (as applicable), plantings, and permanent monitoring plots.

9.2 Annual Monitoring Reports

The monitoring period will begin in the first growing season following construction. Monitoring will occur twice a year for the first two years, once a year for the next three (3) years, and every other year for the final five (10) years until year ten (15). If all performance standards are

achieved, the Agent may request a reduction in monitoring efforts for the remaining monitoring period. After all performance standards are achieved and after the final report in monitoring year ten (or earlier), the Agent will transfer the PRM Site into the long-term management phase as described in Section 10.0 Long-Term Management.

Monitoring will occur during the spring and fall in the years where two monitoring events are required and will occur once during the applicable growing season thereafter. The Agent will submit spring monitoring reports to NYSDEC and USACE on or before June 31st and all other monitoring reports will be submitted to the NYSDEC and USACE by December 31st. The monitoring reports will include all data collected from the year's monitoring events to assess progress towards the performance standards detailed in Section 8.0: Performance Standards. Table 11: Monitoring Requirements summarizes the sampling parameters and specifications.

Table 11: Monitoring Requirements[1]

Monitoring Plot Type	Specifications	Data Collected	Quantity
Woody Plots	20' Radius Circle	Species, Percent Coverage, Height, Facultative Status, Nativity, Condition, Percent Browse, Volunteer or Planted, and Plot Photos (North, South, East, West)	1 per acre
Herbaceous Plots[2]	5' by 5'	Species, Percent Coverage, Facultative Status, Nativity, and Plot Photo (Center)	1 per acre
Hydric Soils	1 Sample	Hydric soil indicator data form and photo in wetland restoration areas.	1 per 3 acres of Restoration (2 Total)
Groundwater Wells	HOBO Data Logger	Groundwater level hydrographs in wetland restoration areas.	1 per 3 acres of Restoration (2 total)

[1]Performance will be based on the average of all monitoring plots established at the PRM Site.
[2]Herbaceous and woody plot monitoring will occur concurrently.

Additionally, the monitoring report will include a detailed discussion of maintenance and management activities conducted during that year, along with a proposed maintenance schedule for the following year. The report will also include discussion of all activities that took place at the PRM Site. At a minimum, the monitoring report should also include the following:

- Photos taken from ground level at each monitoring plot to document overall conditions.
- A description of the general condition of the plantings, including survival and mortality, and if applicable, a discussion of likely causes for mortality.
- A description of vegetative communities developing at each monitoring plot
- A description of the generalized degree and distribution of exotic/invasive species
- Identification of measures used to eradicate exotic/invasive species and document results of these efforts.
- A corrective action plan or explanation to address any Performance Standards that have not been achieved if applicable.

Monitoring will adhere to the following schedules:

- The monitoring of vegetation (herbaceous and woody species) will be conducted during the growing season.
- If all Performance Standards (Section 9: Performance Standards) have not been met by the tenth year, then the Agent will submit a remedial plan. The remedial plan must evaluate the likely reasons for not achieving performance standards, describe the actions needed to correct the situation, and a schedule for conducting the remedial

work. Once approved, the remedial plan will be implemented according to the approved schedule.

- Monitoring reports will be submitted for each applicable monitoring year. To corroborate that compensatory mitigation performances were met, there will be a Submittal of a final monitoring report.

10.0 Long-Term Management

After the PRM Site has achieved all performance standards, the Agent may submit a request to the NYSDEC and USACE to proceed to the long-term management phase.

Long-term management responsibilities are anticipated to be minimal after the monitoring period as the site will be resilient to outside pressure following the establishment of a dense native plant community. Long-term management responsibilities will include annual site inspections, and invasive species control, described as follows.

PRM Site boundaries will be marked with metal signs at regular intervals reading "Wetland Conservation Area" to prevent casual trespass and encroachment.

Site inspection will be performed at least once annually and qualitatively document observed on-site conditions, invasive species cover, and conditions of signage. Information gathered during the site inspection(s) with representative photos will be presented in a brief long-term management report submitted annually by December 31st. The report shall include a brief maintenance plan and schedule to address invasive species establishment, damaged signs, or (when necessary). The maintenance activities needed will then be implemented in the following year and summarized in the next annual report.

The responsible party will inspect and qualitatively estimate invasive species cover annually and implement treatment (if necessary). Signage will be inspected annually; damaged or lost signs will be replaced as needed. Trash will be removed as encountered during annual inspections.

The Agent will remain responsible for long-term management of the PRM Site until a suitable long-term steward is identified and approved by NYSDEC and the USACE. The Agent will establish a long-term management fund approved by USACE prior to construction completion. When a suitable long-term steward is identified and approved, the Agent will transfer these funds to the long-term steward to cover long-term management responsibilities.

Long-term management will continue every other year for ten years following site close-out. After ten years long-term management activities may cease, and the PRM Site will remain permanently protected by the SPI.

11.0 Adaptive Management

Adaptive management will take place during the monitoring period. The focus of adaptive management will be the extent of newly constructed wetland and the vegetative community throughout the site. During the monitoring period, if certain species of plants exhibit high mortality they will be excluded from future plantings. As the site develops, invasive species coverages may change in density or location. The monitoring of invasive species will inform the invasive species control protocol. As certain species establish in density and location, control practices will be adapted to target those species. Hydrologic monitoring throughout the monitoring period will be used in tandem with hydrophytic vegetation establishment, to determine if any new wetland areas are not receiving enough hydrology. Any such areas will be analyzed to determine if additional work is needed to improve hydrology retention.

If all Performance Standards have not been met by the tenth year of monitoring, then the Agent will submit a remedial plan, and an additional monitoring period will be prescribed in consultation with USACE and NYSDEC. The remedial plan will evaluate the likely reasons for not achieving performance standards, describe the actions needed to correct the situation to ensure successful mitigation, and a schedule for conducting the remedial work. Once approved, the remedial plan will be implemented according to the approved schedule.

Remedial actions could include additional plantings to improve woody performance, additional invasive species control efforts to eradicate invasive species, additional reseeding to improve native vegetation cover, or additional grading to improve hydrology.

12.0 References

Conley, A. (2024, January 16). NY Riparian Opportunity Assessment: Sub watershed Results. Arcgis.com. https://www.arcgis.com/home/webmap/viewer.html?webmap=a914e62f4ffc497ea05cbeaf203fb819&extent=-80.4937%2C39.4452%2C-66.8596%2C45.944

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. United States Department of the Army, United States Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Federal Emergency Management Agency. 2011. National Flood Hazard Layer. Web Map Service. Washington, D.C. http://www.fema.gov/library/viewRecord.do?id =3291.

Lichvar, R. W. and Kartesz, J. T. 2014. North American Digital Flora: National Wetland Plant List, Version 3.2. United States Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire, and BONAP, Chapel Hill, North Carolina.

New York State Department of Environmental Conservation. 2021. "Statewide Riparian Opportunity Assessment." Accessed November 2023..

New York State Department of Environmental Conservation. 1993. "Freshwater Wetlands Regulation Guidelines on Compensatory Mitigation." October 26, 1993. https://www.dec.ny.gov/docs/wildlife_pdf/wetlmit.pdf.

New York State Riparian Opportunity Assessment. New York Natural Heritage Program, Conley, A. K., White, E. L., & Howard, T. G. NEW YORK.

Oneida Lake and Watershed Advisory Counsel, A management strategy for Oneida Lake and its watershed (2004). Syracuse, NY; Central New York Regional Planning and Development Board.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at https://websoilsurvey.sc.egov.usda.gov/. Accessed January 2023.

United States Geological Survey. New York Geologic Map Data. Available online at https://mrdata.usgs.gov/geology/state/state.php?state=NY. Accessed November 2023.

United States Army Corps of Engineers. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region. (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, C. V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

APPENDIX A
FIGURES

Figure 1A
Impact Location

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Impact Location

Conservation Area

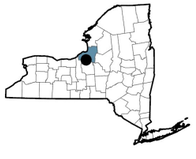
N

1 in = 0.5 mi *when printed at 11x17"*

0 0.25 0.5

Miles

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2021); ESRI Reference Layer (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/7/2025
Project Number: 113375



res
www.res.us

Figure 1B
Project Location

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

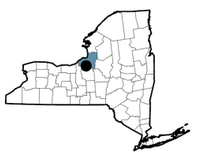
7.5 Minute Quadrangle Index

Conservation Area
(±29.58 AC)

N 1 in = 0.25 mi *when printed at 11x17"*

0 0.125 0.25
Miles

Reference: Project limits are approximate and do not reflect a survey. The Area of Investigation is located in the 1:24K Pennellville (43076-C3) 7.5' USGS quadrangle.
Data Source: ESRI USA_Topo_Maps (ESRI 2024); USGS 7.5' quadrangle index (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



www.res.us

Figure 2
HUC 8 Watershed

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

PRM Project Location

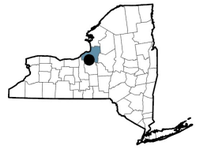
HUC 8 Watersheds

N

1 in = 10 mi *when printed at 11x17"*

0 1 2 4 6 8 10
Miles

Reference: Project limits are approximate and do not reflect a survey.
Data Source: USGS (2015); ESRI Imagery Reference Layer (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/7/2025
Project Number: 113375



res
www.res.us

Figure 3A
Existing Conditions - State

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Conservation Area (±29.58 AC)

DEC Regulated Streams

Classification

C

DEC Regulated Wetlands

Previously Mapped Freshwater Wetlands

Informational Freshwater Wetlands

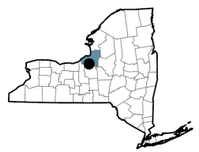
N

1 in = 200 ft *when printed at 11x17"*

0 40 80 120 160 200

US Feet

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024); NYS DEC (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

Figure 3B
Existing Conditions - Federal

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Conservation Area (±29.58 AC)

Streams
- NHD Flowlines
- StreamStats Streamgrid

NWI Wetlands
- Freshwater Forested/Shrub Wetland
- Riverine

N

1 in = 200 ft *when printed at 11x17"*

0 40 80 120 160 200

US Feet

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024); USFWS NWI (2024); USGS NHD (2024); USGS StreamStats (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/7/2025
Project Number: 113375

res
www.res.us

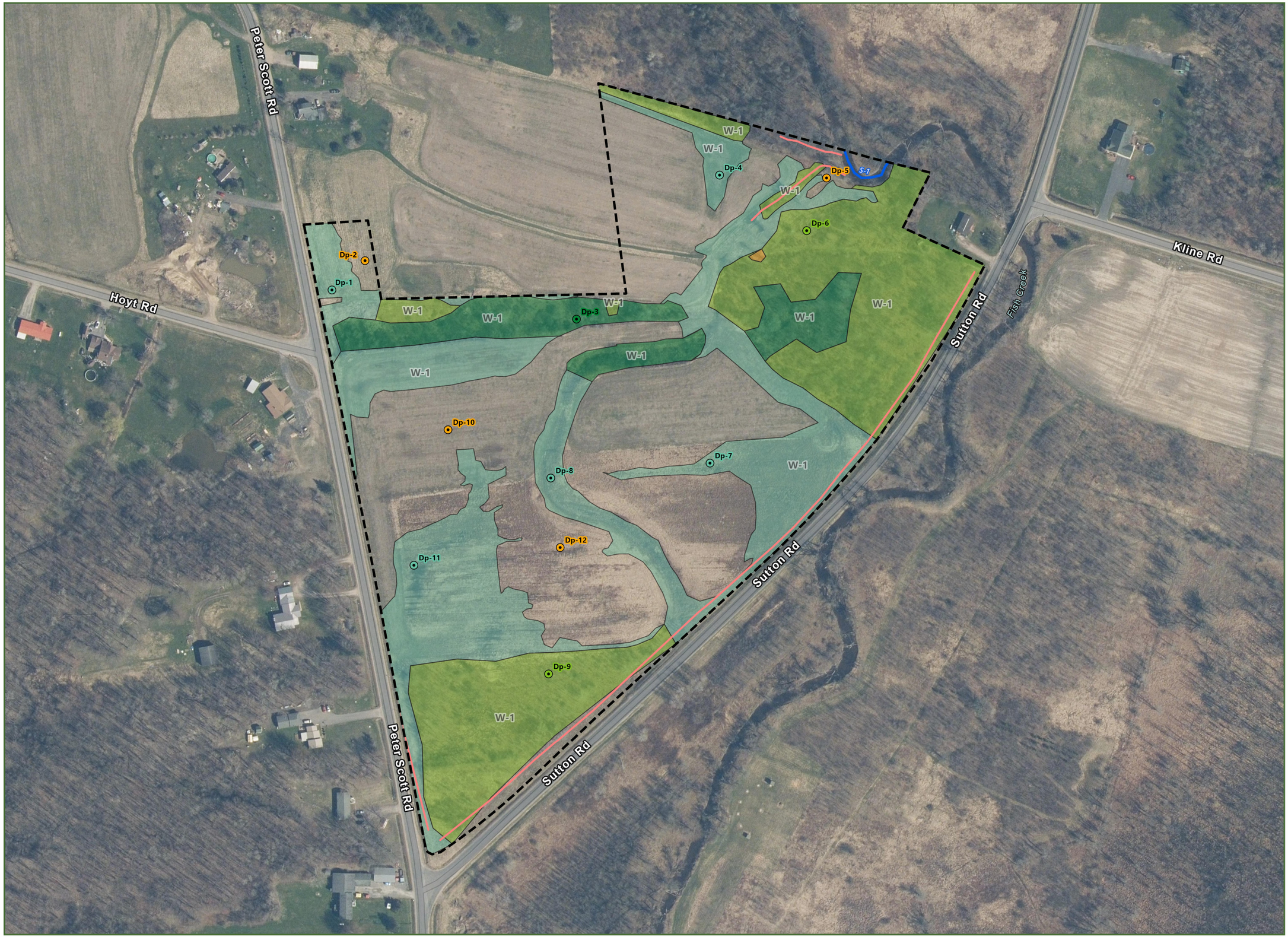


Figure 3C
Delineated Aquatic Resources

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Conservation Area (±29.58 AC)

Data Points

Wetland

- PEM | Palustrine Emergent
- PSS | Palustrine Scrub/Shrub
- PFO | Palustrine Forested

Non-Wetland

- Upland

Delineated Streams (±2,524.44 LF)

- Perennial (±150.86 LF)
- Ditch (±2,373.58 LF)

Delineated Wetlands (±17.52 AC)

- PEM | Palustrine Emergent (±8.20 AC)
- PSS | Palustrine Scrub/Shrub (±7.16 AC)
- PFO | Palustrine Forested (±2.15 AC)
- Upland, Non-Wetland (±0.01 AC)

N

1 in = 200 ft *when printed at 11x17"*

0 50 100 150 200

US Feet

Reference: Project limits are approximate and do not reflect a survey. Only delineated aquatic resources that fall within the Conservation Area are shown. Site delineation occurred on 11/03/2025 and 11/05/2025.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/7/2025
Project Number: 113375

res
www.res.us

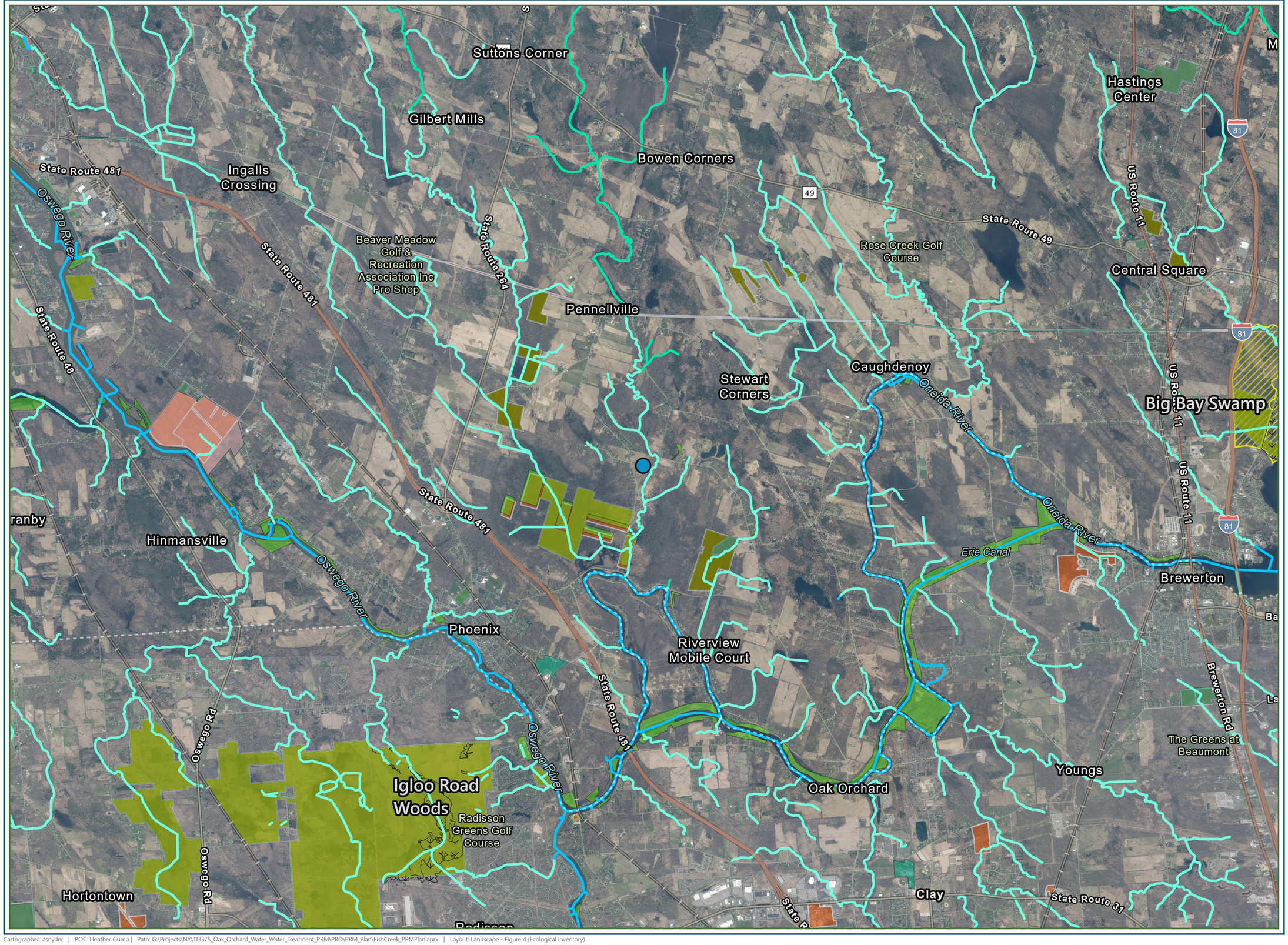


Figure 4
Ecological Inventory

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

PRM Project Location

DEC Water Quality Classifications
- B
- C
- C(T)

Managed Lands
- Federal
- State
- Local Government
- Regional Agency Special District
- Non-Governmental Organization
- Private
- Joint

NY Protected Areas
- Fee
- Easements

Audubon Society
- Important Bird Areas (IBA)

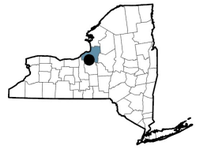
NY NHP
- Natural Heritage Communities

N

1 in = 1 mi *when printed at 11x17"*

0 0.25 0.5 0.75 1
Miles

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2021); NYS DEC (2024); NYPAD (2024); USGS (2022); National Audubon Society (2021)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

Figure 5A
2001 National Land Cover

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Conservation Area (±29.58 AC)

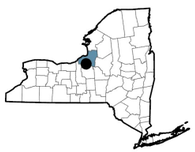
2001 National Land Cover Database

- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Herbaceous
- Hay/Pasture
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

N 1 in = 0.25 mi *when printed at 11x17"*

0 0.125 0.25
Miles

Reference: Project limits are approximate and do not reflect a survey.
Data Source: USGS (2001); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



www.res.us

Figure 5B
2011 National Land Cover

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Conservation Area (±29.58 AC)

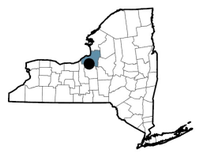
2011 National Land Cover Database

- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Herbaceous
- Hay/Pasture
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

N 1 in = 0.25 mi *when printed at 11x17"*

0 0.125 0.25
Miles

Reference: Project limits are approximate and do not reflect a survey.
Data Source: USGS (2011); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 110842



res
www.res.us

Figure 5C
2021 National Land Cover

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Conservation Area (±29.58 AC)

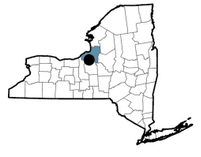
2021 National Land Cover Database

- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Herbaceous
- Hay/Pasture
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

N 1 in = 0.25 mi *when printed at 11x17"*

0 0.125 0.25
Miles

Reference: Project limits are approximate and do not reflect a survey.
Data Source: USGS (2021); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



www.res.us

Figure 6A
1956 Historic Aerial Imagery

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

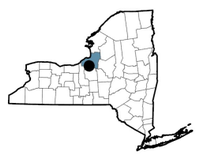
Conservation Area
(±29.58 AC)

N

1 in = 200 ft *when printed at 11x17"*

0 50 100 150 200
US Feet

Reference: Project limits are approximate and do not reflect a survey. The background aerial image was acquired on 05/07/1956. Present-day roads and location labels are shown for reference.
Data Source: ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

Figure 6B
1960 Historic Aerial Imagery

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Conservation Area
(±29.58 AC)

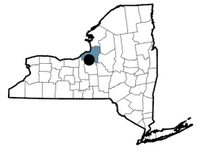
N

1 in = 200 ft *when printed at 11x17"*

0 50 100 150 200

US Feet

Reference: Project limits are approximate and do not reflect a survey. The background aerial image was acquired on 06/06/1960. Present-day roads and location labels are shown for reference.
Data Source: ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

Figure 6C
1972 Historic Aerial Imagery

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

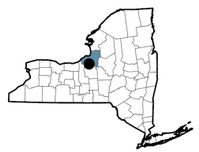
Conservation Area
(±29.58 AC)

N

1 in = 200 ft *when printed at 11x17"*

0 50 100 150 200
US Feet

Reference: Project limits are approximate and do not reflect a survey. The background aerial image was acquired on 05/06/1972. Present-day roads and location labels are shown for reference.
Data Source: ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

Figure 6D
2021 Extant Aerial Imagery

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

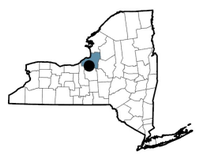
Conservation Area
(±29.58 AC)

N

1 in = 200 ft *when printed at 11x17"*

0 50 100 150 200
US Feet

Reference: Project limits are approximate and do not reflect a survey. The background aerial image was acquired in 2021.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

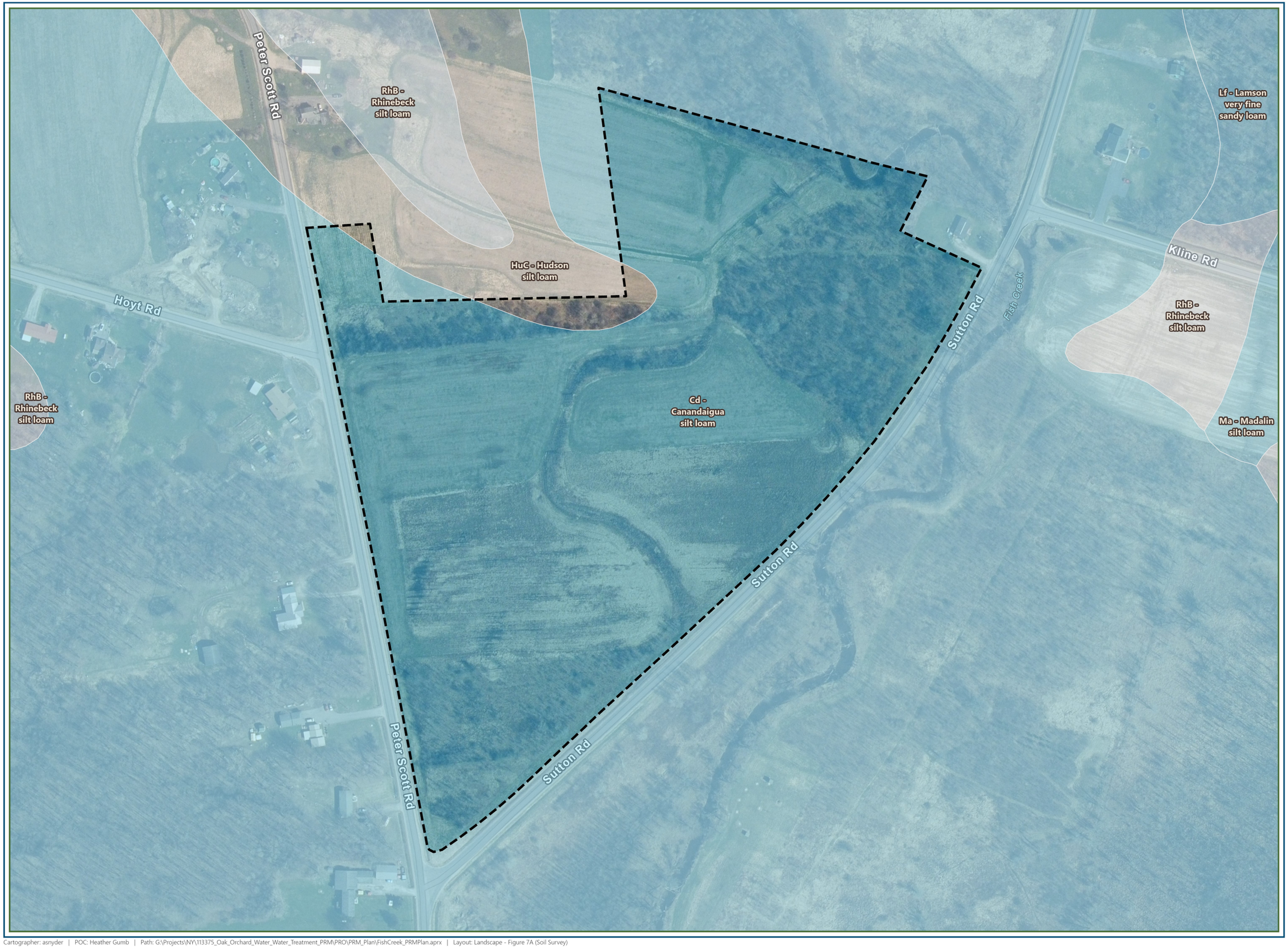


Figure 7
Soil Survey

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Conservation Area (±29.58 AC)

SSURGO Soil Map Units

- Predominantly Hydric 66-99% Hydric Classification
- Partially Hydric 33-66% Hydric Classification
- Predominantly Non-Hydric 1-33% Hydric Classification
- Non-Hydric 0% Hydric Classification

N

1 in = 200 ft *when printed at 11x17"*

0 50 100 150 200

US Feet

Reference: Project limits are approximate and do not reflect a survey. Hydric ratings are based on the SSURGO "Hydric Classification-Presence" field.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024); USDA SSURGO (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/7/2025
Project Number: 113375

res
www.res.us

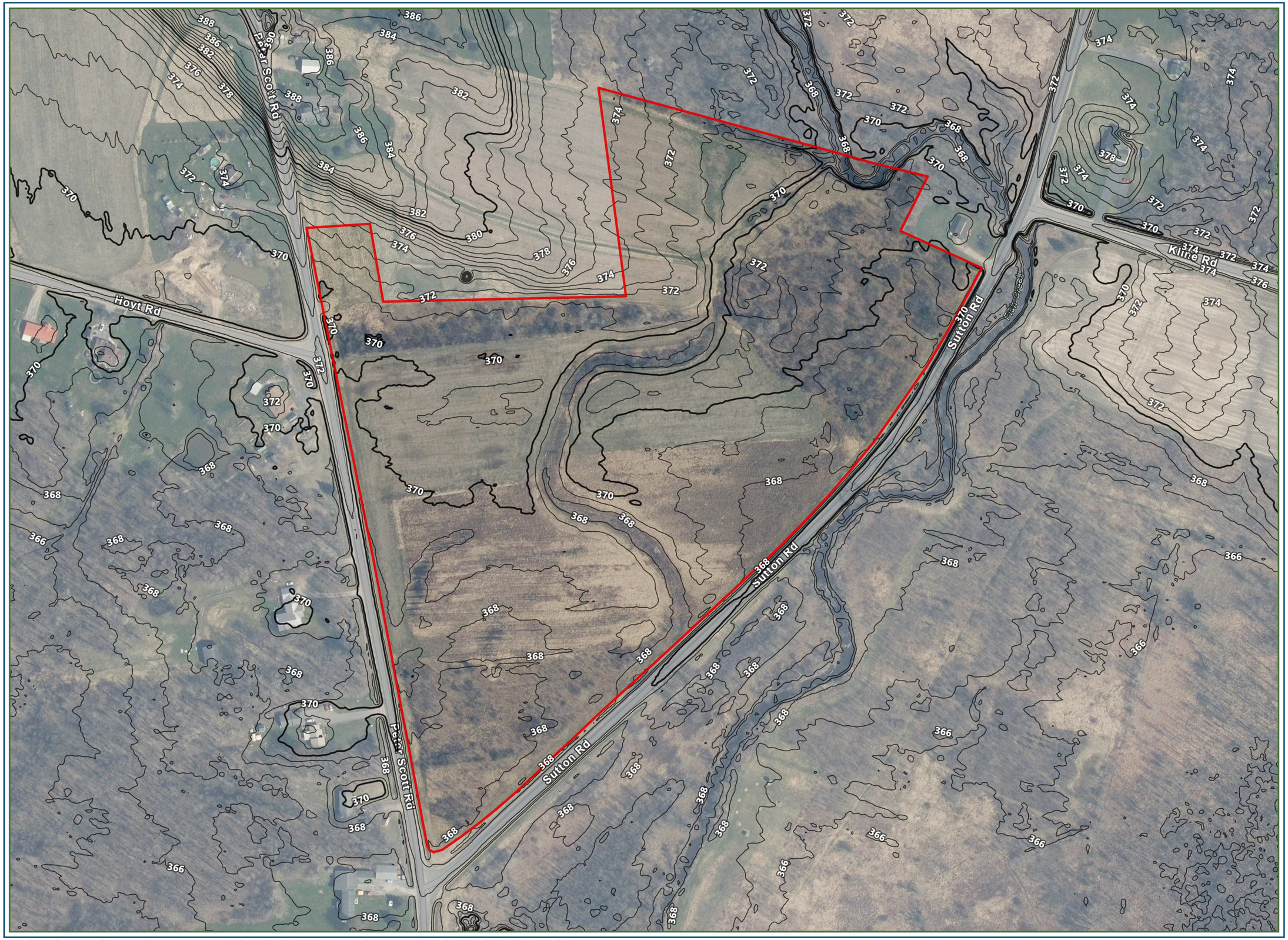


Figure 8
Topography

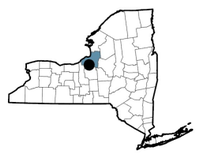
FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Conservation Area (±29.58 AC)
Contours (10ft)
Contours (1ft)

N
1 in = 200 ft *when printed at 11x17"*
0 50 100 150 200
US Feet

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/7/2025
Project Number: 113375



res
www.res.us

Figure 9
FEMA Flood Hazards

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Area of Investigation (±29.58 AC)

NFHL Flood Hazard Zones

AE | 1% Annual Flood Hazard

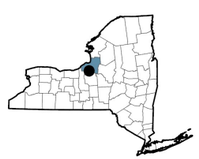
N

1 in = 200 ft *when printed at 11x17"*

0 50 100 150 200

US Feet

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024); FEMA NFHL (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/7/2025
Project Number: 113375



res
www.res.us

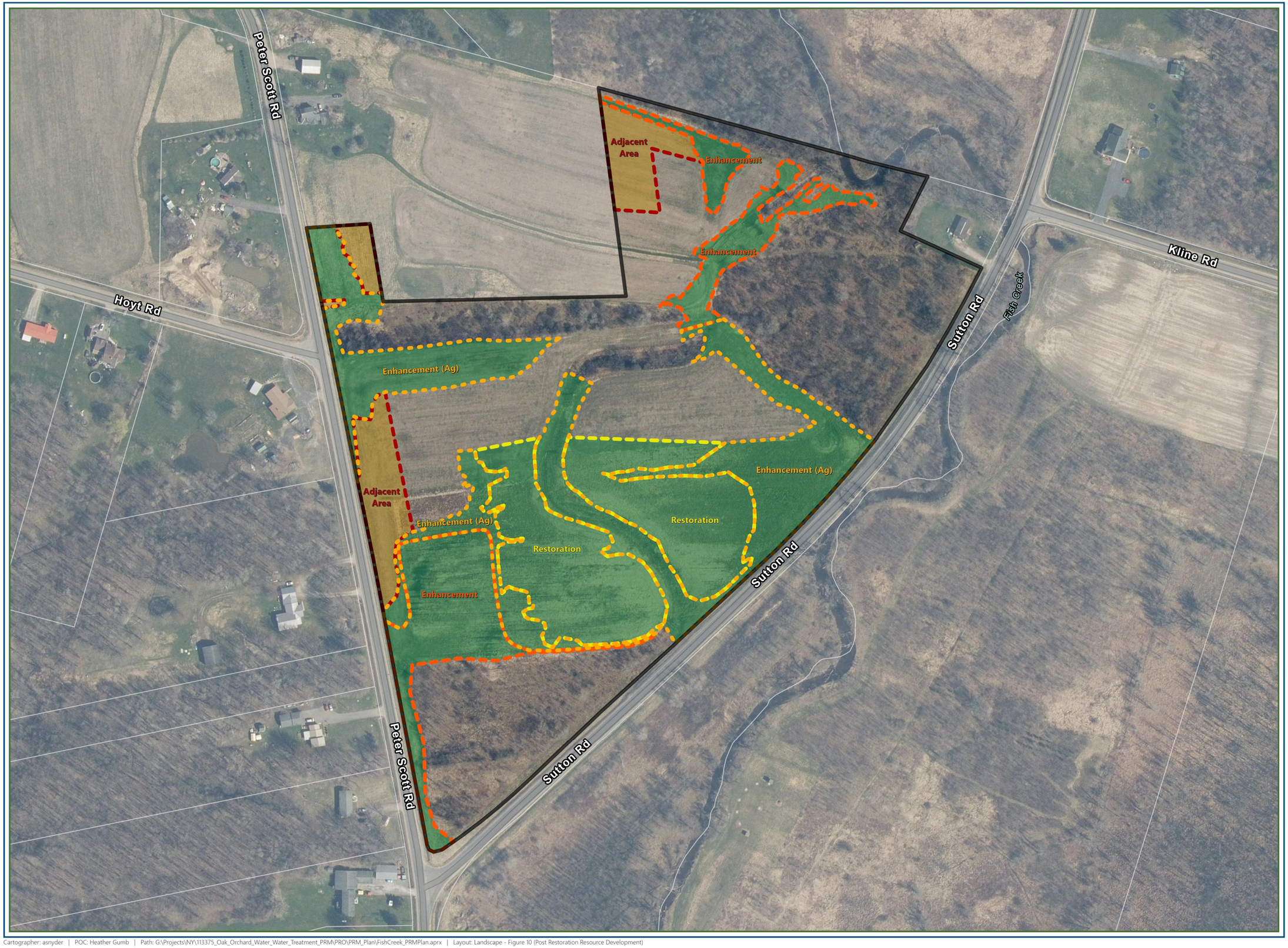


Figure 10
Post Restoration Resource Development

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Conservation Area (±29.58 AC)

Restoration
PFO | ±4.27 AC

Enhancement (Ag)
PFO | ±5.28 AC

Enhancement (PEM)
PFO | ± 2.90 AC

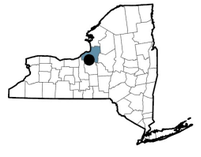
Adjacent Area
UPL | ±1.67 AC

N

1 in = 200 ft *when printed at 11x17"*

0 50 100 150 200
US Feet

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2018); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/10/2025
Project Number: 113375



res
www.res.us

Figure 11
Temporary Wetland Impacts

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

- Limit Of Grading
- Potential Soil Deposition Area
- Conservation Area (±29.58 AC)
- Proposed Access
- Parcel Boundary

Wetland Impacts (±1.75 AC)

Impact Type

- Temporary Grading (±1.67 AC)
- Temporary Geotech (±0.08 AC)
- No Impact

Stream Impacts (±0 LF)

- No Impact

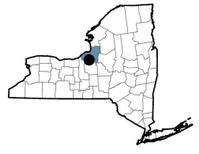
N

1 in = 250 ft *when printed at 11x17"*

0 50 100 150 200 250

US Feet

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2018); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/10/2025
Project Number: 113375



res
www.res.us

Figure 12
Invasive Species Coverage

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Peter Scott Rd
Hoyt Rd
Kline Rd
Sutton Rd
Fish Creek
Peter Scott Rd
Sutton Rd

-Purple Loosestrife
-Reed Canary
-Purple Loosestrife
-Reed Canary
-Bush Honeysuckle
-Multiflora Rose
-Purple Loosestrife
-Reed Canary
-Reed Canary
-Phragmites
-Bush Honeysuckle
-Multiflora Rose
-Purple Loosestrife
-Reed Canary
-Reed Canary
-Phragmites
-Bush Honeysuckle
-Multiflora Rose
-Purple Loosestrife
-Reed Canary

Conservation Area (±29.58 AC)

Adjacent Parcels

Delineated Wetlands

PEM | Palustrine Emergent

PSS | Palustrine Scrub/Shrub

PFO | Palustrine Forested

UPL | Upland

Invasive Species

Percent Cover

0-5 (±12.04 AC)

10-20 (±0.64 AC)

30-40 (±1.46 AC)

50-60 (±14.74 AC)

70-80 (±0.71 AC)

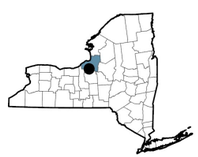
N

1 in = 200 ft *when printed at 11x17"*

0 50 100 150 200

US Feet

Reference: Project limits are approximate. This information is not to be used as final legal boundaries.
Data Source: NYS DOP (2018-2023)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/10/2025
Project Number: 113375



res
www.res.us

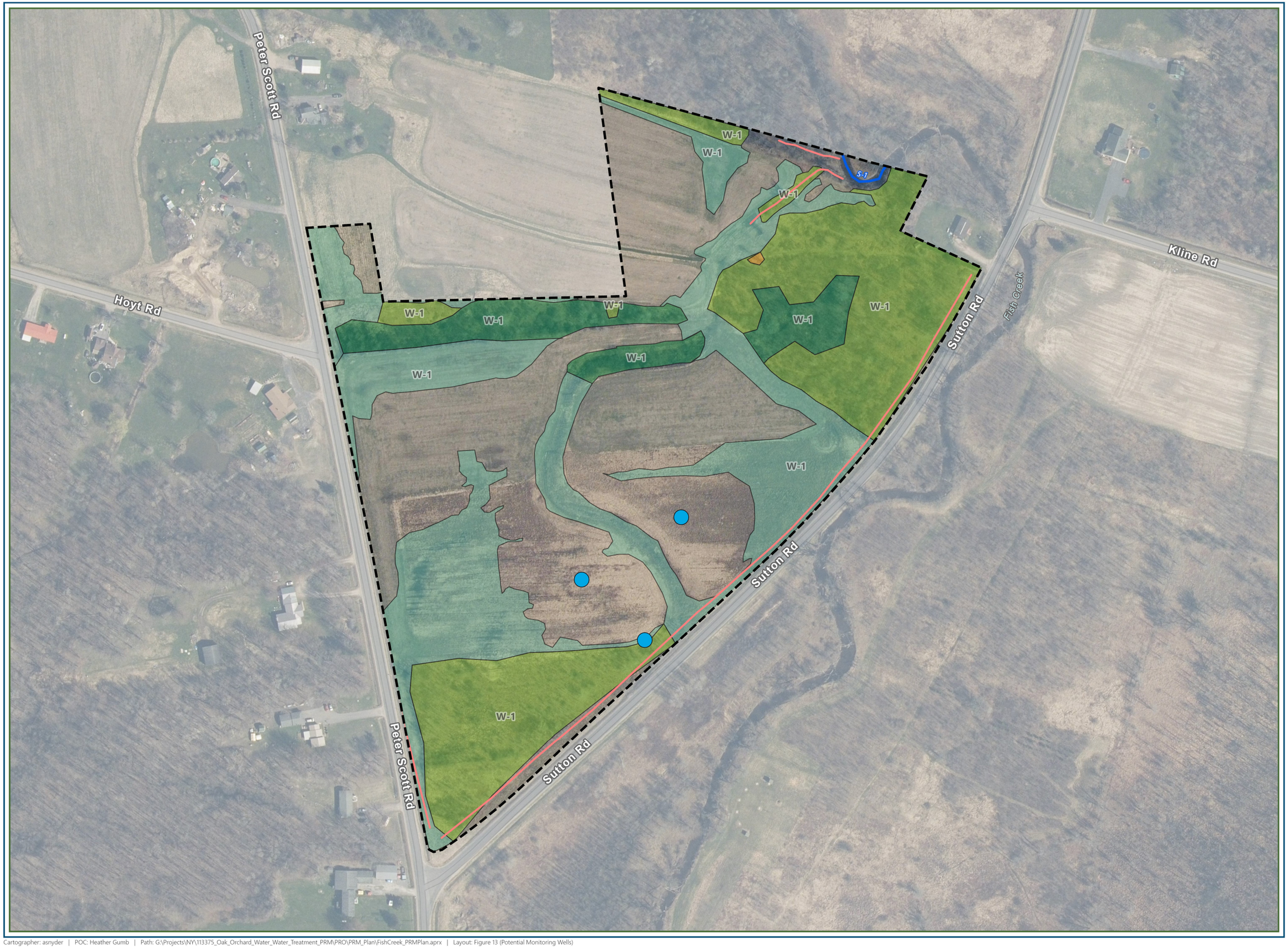


Figure 13
Potential Monitoring Well Locations

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

- Potential Monitoring Well*
- Conservation Area (±29.58 AC)

Delineated Streams (±2,524.44 LF)
- Perennial (±150.86 LF)
- Ditch (±2,373.58 LF)

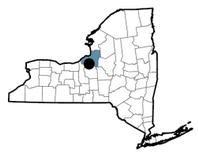
Delineated Wetlands (±17.52 AC)
- PEM | Palustrine Emergent (±8.20 AC)
- PSS | Palustrine Scrub/Shrub (±7.16 AC)
- PFO | Palustrine Forested (±2.15 AC)
- Upland, Non-Wetland (±0.01 AC)

Monitoring Wells will be placed in the general vicinity of proposed point location. Exact location will be updated after as-built.

N 1 in = 200 ft *when printed at 11x17"*

0 50 100 150 200
US Feet

Reference: Project limits are approximate and do not reflect a survey. Only delineated aquatic resources that fall within the Conservation Area are shown. Site delineation occurred on 11/03/2025 and 11/05/2025.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/10/2025
Project Number: 113375



res
www.res.us

APPENDIX B
SITE PROTECTION INSTRUMENT

MODEL CONSERVATION EASEMENT

THIS DECLARATION OF CONSERVATION EASEMENT, is made this ___ day of _____, 20__, by _____ (the "Grantor"), its successors and assigns, having an address at _____, _____, New York, for the benefit of, but not the burden upon, _____ (the "Grantee"), having an address at _____, _____, New York.

WHEREAS, Grantor is the owner in fee simple of real property located in the Town of _____, County of _____, and State of New York, which property is more fully described in Deed Libers of the _____ County Clerk, _____ (the "Permitted Property"); and

WHEREAS, Grantor seeks to develop the property in a manner which will result in impacts to waters of the United States. These impacts are authorized by Department of the Army Permit number _____, issued on _____, __, 20__ by the United States Army Corps of Engineers, Buffalo District ("USACE," to include any successor agency), attached as Exhibit A ("the Permit"), in accordance with Section 404 of the Federal Clean Water Act (33 U.S.C. § 1344) and/or Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 401) and implementing regulations; and

WHEREAS, in order to protect, restore, and maintain the chemical, physical, and biological integrity of waters of the United States including wetlands through the control of discharges of dredged or fill material located on the real property; in accordance with the common law and with the Conservation Easements provisions of New York Environmental Conservation Law ("ECL") Article 49, Title 3; in recognition of the continuing benefit to scenic and natural resources, the environment, and general property values; and as a condition of being issued the Permit; Grantor agrees to restrict ownership and use of the portion of the Permitted Property as identified and described by metes and bounds on Exhibit B, attached hereto, and as set forth graphically on Exhibit C, attached hereto (the "Protected Property"); and

WHEREAS, Grantor desires to declare, create, and convey to Grantee a Conservation Easement placing certain limitations and affirmative obligations on the Protected Property for the protection of wetlands, scenic, resource, environmental, and other values, and in order that the Protected Property shall remain substantially in its natural condition, in perpetuity; and

WHEREAS, Grantee is a New York public body or not-for-profit conservation organization qualified to hold a Conservation Easement in accordance with ECL Section 49-0305; and

WHEREAS, the purposes of this Conservation Easement include, without limitation, conservation and preservation of the Protected Property, with its scenic and other natural resource values and its aquatic resources, which resources include native flora and fauna, and the ecological processes that support them; diverse forest types and conditions; soil productivity; biological diversity; water quality; and wetland, riparian, and other aquatic habitats; and

DRAFT

WHEREAS, Grantor agrees, in accordance with ECL Section 49-0305.5, that rights of enforcement of the terms of this Conservation Easement shall be held by Grantee, and that third-party rights of enforcement shall also be held by the USACE or other appropriate enforcement agencies of the United States and that these rights are in addition to, and do not limit, the rights of enforcement under the Permit; and

NOW, THEREFORE, for the foregoing consideration, and in further consideration of the restrictions, rights, and agreements herein, Grantor hereby creates, gives, grants, bargains, and conveys to Grantee a perpetual easement in, to, over, and across, the Protected Property for the purposes of preservation, protection, maintenance, and conservation of the Protected Property and the conservation and wildlife resources thereon.

A. RESTRICTIONS

These Restrictions on the Protected Property shall run with the Protected Property in perpetuity, and be binding on Grantor, Grantee, and their respective successors, assigns, lessees, and other occupiers and users. These Restrictions are subject to Grantor's Reserved Rights, which follow.

1. **General**. There shall be no future fillings, flooding, excavating, mining, or drilling; no removal of natural materials (soil, sand, gravel, rock, minerals, etc.); no dumping of materials; and no alteration of the topography which would materially affect the Protected Property in any manner, except as authorized by the Permit.

2. **Waters and Wetlands**. In addition to the general restrictions above, within the Protected Property there shall be no draining, dredging, damming, or impounding; no changing the grade or elevation, impairing the flow or circulation of waters, or reducing the reach of waters; and no other discharges or activity requiring a permit under applicable water pollution control laws and regulations, except as authorized by the Permit or by current New York State Department of Environmental Conservation permits, or any amendments thereof.

3. **Trees/Vegetation**. On the Protected Property there shall be no clearing, burning, cutting, or destroying of trees or vegetation, except as may be necessary to protect public health or safety or as authorized by the Permit; there shall be no planting or introduction of non-native or exotic species of trees or vegetation.

4. **Uses**. No agricultural, animal husbandry, industrial, residential development, mining, logging, or commercial activity shall be undertaken or allowed on the Protected Property.

5. **Structures**. There shall be no construction, erection, or placement of buildings, billboards, or any other structures, to include fences, parking lots, trailers, mobile homes, camping accommodations, or recreational vehicles, or additions to existing structures, on the Protected Property.

6. **New Roads**. There shall be no construction of new roads, trails, or walkways on the Protected Property without the prior written approval (including approval of the manner of construction) of Grantee and the USACE.

DRAFT

7. **Utilities**. There shall be no construction or placement of utilities or related facilities (including telecommunications towers and antennas) on the Protected Property without the prior written approval (including approval of the manner of construction) of Grantee and the USACE.

8. **Pest Control**. There shall be no application of pesticides or biological controls, including controls of problem vegetation, on the Protected Property without prior written approval (including approval of the manner of application) of Grantee and the USACE.

9. **Vehicular Use**. There shall be no use of any motorized vehicle or motorized equipment, and no use of any non-motorized bicycle anywhere on the Protected Property, except in the case of emergency, for the purpose of enforcement of applicable laws and regulations, or for the purpose of monitoring compliance with the purposes of this Conservation Easement.

10. **Subdivision**. There shall be no division or subdivision of the Protected Property.

11. **Other Prohibitions**. Any other use of, or activity on, the Protected Property which is or may become inconsistent with the purposes of this Conservation Easement, the preservation of the Protected Property substantially in its natural condition, or the protection of its environmental systems, is prohibited.

B. RESERVED RIGHTS OF GRANTOR

Grantor reserves the right to engage in all acts or uses not prohibited by the Restrictions, which are not inconsistent with the conservation purposes of this grant, the preservation of the Protected Property substantially in its natural condition, and the protection of its environmental systems, and which do not interfere with Grantor's obligations under the Permit. Nothing herein shall be deemed to modify or amend any other or additional agreements between or among Grantor, Grantee, and the USACE. In the event any of Grantor's acts or uses, whether on the Protected Property or on the Permitted Property, are subject to review under the New York State Environmental Quality Review Act (SEQRA), Grantee shall be designated as an interested party and notified of the review process.

C. GENERAL PROVISIONS

The following General Provisions shall be binding upon Grantor and Grantor's heirs, successors, grantees, transferees, administrators, assigns, lessees, licensees, and agents, and shall inure to the benefit of Grantee and the USACE, and the heirs, successors, grantees, transferees, administrators, assigns, lessees, licenses, and agents of Grantee and the USACE:

1. **Rights of Access and Entry**. Grantee and the USACE shall have the right to enter and go upon the Protected Property for purposes of monitoring and inspection, and to take actions necessary to verify compliance with the Restrictions. Grantee shall also have rights of visual access and view, and the right to enter and go upon the Protected Property for purposes of making scientific or educational observations and studies, and taking samples, in such a manner as will not disturb the quiet enjoyment of the Protected Property by Grantor. No right of access or entry by the general public to any portion of the Protected Property is conveyed by this Conservation Easement.

DRAFT

2. **Right to Preserve**. Grantee has the right to prevent any activity on or use of the Easement Area that is inconsistent with the terms or purposes of this Conservation Easement.

3. **Signs**. The Grantee shall have the right to place signs on the Protected Property which identify the land as being protected by this Conservation Easement. The number, size, and content of any such signs are subject to Grantor's approval and the requirements of the Permit.

4. **Enforcement**. Grantor acknowledges and agrees that Grantee's and the USACE's remedies at law for any violation of this Conservation Easement are inadequate. In the event of a breach of any of the Restrictions set forth above, Grantee or the USACE must notify Grantor in writing of the breach. Grantor shall have thirty (30) days after receipt of such notice to undertake actions that are reasonably calculated to promptly correct the conditions constituting the breach. If Grantor fails to commence such corrective action within thirty (30) days, or fails to complete the necessary corrective action, Grantee or the USACE may undertake such actions, including legal proceedings, as are necessary to effect such corrective action. Among other relief, Grantee or the USACE shall be entitled to specific performance of the terms of this Conservation Easement and to complete restoration of the Protected Property, correcting damage caused by any breach of the Restrictions. Breaches of the General Provisions of this Conservation Easement shall be actionable without notice. The costs of a breach, correction, or restoration, including reasonable Grantee or USACE expenses, expert or consultant expenses, court costs, and attorneys' fees, shall be paid by Grantor. Enforcement shall be at the discretion of Grantee or the USACE. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. Grantee's and the USACE's enforcement rights are in addition to, and shall not limit, enforcement rights available under other provisions of law or equity, or under any applicable permit or certification.

5. **Events Beyond Grantor's Control**. Nothing herein shall be construed to authorize Grantee or the USACE to institute any proceedings against Grantor for any changes to the Protected Property caused by acts of God or circumstances beyond Grantor's control such as earthquake, fire, flood, storm, war, civil disturbance, strike, or similar causes.

6. **Obligations of Ownership**. Grantor is responsible for payment of all real estate taxes, assessments, fees, or charges levied upon the Protected Property, and Grantor will provide copies of receipts evidencing payment of any such charges upon request of Grantee or the USACE. Any liens, mortgages, or other encumbrances affecting the Protected Property shall be subject to the terms of this Conservation Easement. Grantee or the USACE shall not be responsible for any costs or liability of any kind related to the ownership, operation, insurance, upkeep, or maintenance of the Protected Property, except as expressly provided herein. Nothing herein shall relieve Grantor of the obligation to comply with federal, state, or local laws, regulations, and permits that may apply to the exercise of ownership, or rights under this Conservation Easement, by Grantor.

7. **Recording**. Grantor shall have this Conservation Easement duly recorded and indexed as such in the Office of the County Clerk of _____ County, New York, as described in ECL Section 49-0305.4. Upon recording, Grantor shall forward a copy of this Conservation Easement to the New York Department of Environmental Conservation, as described in ECL

DRAFT

Section 49-0305.4. Grantor's recording and transmission to the New York Department of Environmental Conservation shall take place prior to Grantor's commencing work as authorized by the Permit.

8. **Extinguishment**. In the event that changed conditions render impossible the continued use of the Protected Property for conservation purposes, this Conservation Easement may only be extinguished, in whole or in part, by judicial proceeding under authority of ECL Section 49-0307.

9. **Eminent Domain**. If all or part of the Protected Property is taken in the exercise of eminent domain so as to substantially abrogate the Restrictions imposed by this Conservation Easement, Grantor and Grantee shall promptly notify the USACE and shall join in appropriate actions at the time of such taking to recover the full value of the taking, and all incidental and direct damages due to the taking.

10. **Proceeds of Taking**. This Conservation Easement constitutes a real property interest immediately vested in Grantee. In the event that all or a portion of this Protected Property is sold, exchanged, or involuntarily converted following an extinguishment or the exercise of eminent domain, Grantee shall be entitled to the fair market value of this Conservation Easement. The parties stipulate that the fair market value of this Conservation Easement shall be determined by multiplying the fair market value of the Permitted Property unencumbered by this Conservation Easement (minus any increase in value after the date of this grant attributable to improvements) by the ratio of the value of this Conservation Easement at the time of this grant to the value of the Protected Property (without deduction for the value of this Conservation Easement) at the time of this grant. The values at the time of this grant shall be the values used, or which would have been used, to calculate a deduction for federal income tax purposes, pursuant to Section 170(h) of the Internal Revenue Code (whether the grant is eligible or ineligible for such a deduction). Grantee shall use its share of the proceeds in a manner consistent with the purposes of this Conservation Easement.

11. **Notification**. Any notice, request for approval, or other communication required under this Conservation Easement shall be sent by registered or certified mail, postage prepaid, to the following addresses (or such address as may be hereafter specified by notice pursuant to this paragraph):

To Grantor:
(Address and Contact information)

To Grantee:
(Address and Contact information)

To USACE:
U.S. Army Corps of Engineers, Buffalo District
Regulatory Branch
1776 Niagara Street
Buffalo, New York 14207

DRAFT

12. **Assignment**. This Conservation Easement is transferable, but only to a holder qualified under ECL Section 49-0305.3, and approved in writing by the USACE before transfer. As a condition of such transfer, the transferee shall agree to all of the restrictions, rights, and provisions herein, and to continue to carry out the purposes of this Conservation Easement. Assignments shall be accomplished by amendment of this Conservation Easement in accordance with paragraph (C)(16) of this instrument.

13. **Failure of Grantee**. If at any time Grantee is unable or fails to enforce this Conservation Easement, or if Grantee ceases to be a holder qualified under ECL Section 49-0305, and if within a reasonable period of time after the occurrence of one of these events Grantee fails to make an assignment pursuant to paragraph (C)(12) of this instrument, then Grantee's interest shall become vested in another holder qualified in accordance with an appropriate proceeding, to be brought by Grantor in a court of competent jurisdiction.

14. **Subsequent Transfer**. This Conservation Easement shall be perpetual and run with the land and shall be binding upon all future owners of any interest in the Protected Property. The Conveyance of any portion of or any interest in the Protected Property, by sale, exchange, devise or gift, shall be made by an instrument which expressly provides that the interest thereby conveyed is subject to this Conservation Easement, without modification or amendment of the terms of this Easement, and such instrument shall expressly incorporates this Conservation Easement by reference, specifically of this Conservation Easement, nor shall such failure affect Grantee's or the USACE's rights hereunder. No less than thirty (30) days prior to conveyance of any interest in the Protected Property, Grantor (to include any successor Grantor) shall notify Grantee and the USACE of such intended conveyance, providing the full names and mailing addresses of all Grantees, and the individual principals thereof, under any such conveyance.

15. **No Merger of Interests**. In the event the same person or entity ever simultaneously holds an interest in the Protected Property under this Conservation Easement, and holds the underlying title in fee, the parties intend that the separate interests shall not merge.

16. **Amendment**. The Conservation Easement may be amended in accordance with ECL Section 49-0307, but only in writing signed by Grantor and Grantee, or their successors or assigns, and approved in writing by the USACE, its successors or assigns; provided such amendment does not affect the qualification of this Conservation Easement or the status of Grantee under ECL Section 49-0305 or any other applicable law; and provided such amendment is consistent with the conservation purposes of this grant and its perpetual duration. Any amendment to this Conservation Easement shall be recorded and provided to the New York State Department of Environmental Conservation, in the manner set forth in paragraph (C)(7) above.

17. **Severability**. Should a court of competent jurisdiction find any separate part of this Conservation Easement void or unenforceable, the remainder shall continue in full force and effect.

18. **Warranty**. Grantor warrants that it owns the Protected Property in fee simple, and that Grantor owns all interests in the Protected Property that may be impaired by the granting of this Conservation Easement. Grantor warrants that there are no outstanding mortgages, tax liens,

DRAFT

encumbrances, or other interests in the Protected Property that have not been expressly subordinated to this Conservation Easement. Grantor further warrants that Grantee shall have the use of and enjoy all the benefits derived from and arising out of this Conservation Easement. Grantor also warrants that the Permitted Property is not land-locked and there is access to the Protected Property by road, dedication of pathway, or by an access easement.

19. **No Gift or Dedication**. Nothing contained in this Conservation Easement shall be deemed to be a gift for dedication of all or any part of either the Permitted Property or the Protected Property to the public, or for public use.

20. **Applicable Law**. This Conservation Easement shall be governed by, and construed in accordance with, the substantive law of the State of New York.

21. **Subordination [IF APPLICABLE]**. _____, the holder of that certain mortgage which encumbers some or all of the Protected Property and is recorded in the Office of the Clerk of _____ County at _____ (the "Mortgagee"), has executed this Conservation Easement for the sole purpose of subordinating the Mortgage to the terms of this Conservation Easement.

IN WITNESS WHEREOF, Grantor and Grantee have executed this Conservation Easement, as of the date written above.

GRANTOR
[Name of Grantor]

By: _____

Name:

Title:

GRANTEE
[Name of Grantee]

By: _____

Name:

Title:

DRAFT

MORTGAGEE [IF APPLICABLE – ALSO MUST BE NOTARIZED]
[Name of Mortgagee]
For Purposes of Paragraph (C)(21) Only:

By: _____

Name:

Title:

STATE OF NEW YORK)
) ss.:
COUNTY OF)

On the day of in the year 20__ before me, the undersigned, a notary public in and for said state, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed this instrument.

_____
Notary Public

STATE OF NEW YORK)
) ss.:
COUNTY OF)

On the day of in the year 20__ before me, the undersigned, a notary public in and for said state, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed this instrument.

_____
Notary Public

DRAFT

PROVIDE TO SURVEYOR

Instructions for Survey for use with the Model Conservation Easement

<u>Do not record</u> the survey until approved by the Buffalo District Office of Counsel. Provide the platted survey to the attorney preparing the restrictive covenant on behalf of the owner of the property.

Surveys must contain the seal of a New York Registered Land Surveyor. The surveyor should determine the survey plat size approved or required by the land records office in the county where the land lies.

The survey should be a metes and bounds <u>boundary survey</u> of those parcels of land that will be subject to the restrictive covenant. Within the boundary survey is generally located wetland, streams, and buffers. This property generally contains all property referenced as mitigation, including preservation, restoration, establishment, and enhancement. Note that this may be different from a jurisdictional survey that would only show metes and bounds of jurisdictional wetlands or streams.

The bearings and distances should be tied in to at least one known coordinate, with a statement of precision closure <1:10,000.

State the total number of acres of each tract/parcel.

Use a legend to approximately identify the location of the wetlands, wetland buffers, streams, or upland.

Show easements, right-of-ways, roads, and structures that go on or across the parcels subject to the restrictive covenant. Provide the width and length of the easement if known, and the holder of the easement.

Provide a minimum of three or four latitude/longitude coordinates which, when connected, will form a polygon that approximately circumscribes the mitigation area. This is for use with GIS mapping.

Provide a vicinity map identifying roads adjacent to the site.

If the property subject to the restrictive covenant is land-locked and there is no road/path to the property, the property owner must dedicate an access easement to and from the property that is identified on the survey.

Surveyor shall enter "Note" on survey that provides:

> "Wetlands, Streams, and Buffers may be under the jurisdiction of the United States Army Corps of Engineers, permit number (*enter permit number*), and are protected by a recorded Conservation Easement."

DRAFT

APPENDIX C
AGENCY COORDINATION

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
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: 10/31/2025 16:12:51 UTC
Project Code: 2026-0011038
Project Name: Fish Creek Restoration Area

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 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 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:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.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 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/program/migratory-bird-permit/what-we-do.

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/library/collections/threats-birds.

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/partner/council-conservation-migratory-birds.

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:

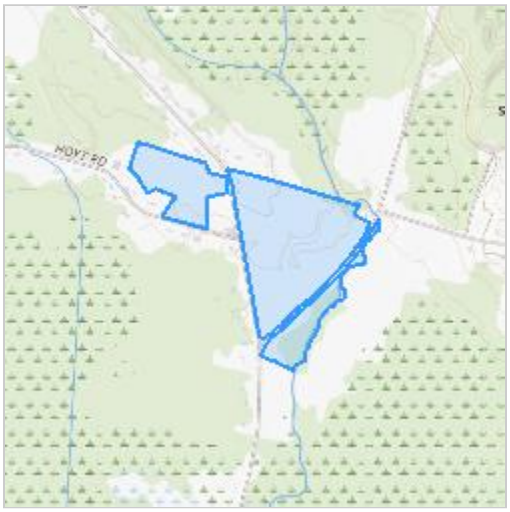
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

PROJECT SUMMARY

Project Code: 2026-0011038
Project Name: Fish Creek Restoration Area
Project Type: Restoration / Enhancement - Wetland
Project Description: Fish Creek Restoration Area is located along Peter Scott Rd in Pennellville, Oswego County, New York. The parcels measure at approximately 60.09 acres in size. The Project is located within the Lake Temalo-Fish Creek watershed (HUC-12 041402020904) and Sixmile Creek watershed (HUC-12 041402020903).

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.2574343,-76.261889035049,14z



Counties: Oswego County, New York

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 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.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Bog Buck Moth *Hemileuca maia menyanthevora (=H. iroquois)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8023	Endangered
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Jessica Hefferon
Address: 14 Jupiter Lane
Address Line 2: Suite 7
City: Colonie
State: NY
Zip: 12205
Email jhefferon@res.us
Phone: 5858028154

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

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
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: 10/31/2025 19:23:57 UTC
Project code: 2026-0011038
Project Name: Fish Creek Restoration Area

Federal Nexus: yes
Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Technical assistance for 'Fish Creek Restoration Area'

Dear Jessica Hefferon:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on October 31, 2025, for “Fish Creek Restoration Area” (here forward, Project). This project has been assigned Project Code 2026-0011038 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species’ determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical

habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Bog Buck Moth (*Hemileuca maia menyanthevora (=H. iroquois)*)	Endangered	May affect
Indiana Bat (*Myotis sodalis*)	Endangered	NLAA

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect". Please contact our New York Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

Other Species and Critical Habitat that May be Present in the Action Area

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New York Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

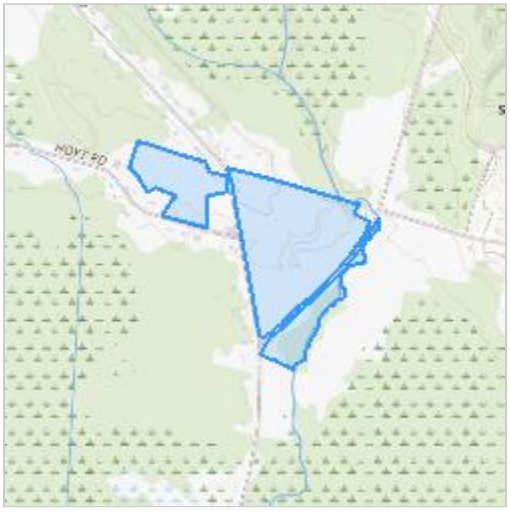
Fish Creek Restoration Area

2. Description

The following description was provided for the project 'Fish Creek Restoration Area':

> Fish Creek Restoration Area is located along Peter Scott Rd in Pennellville, Oswego County, New York. The parcels measure at approximately 60.09 acres in size. The Project is located within the Lake Temalo-Fish Creek watershed (HUC-12 041402020904) and Sixmile Creek watershed (HUC-12 041402020903).

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.2574343,-76.261889035049,14z



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

   Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

   Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

   No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Note: for projects in Pennsylvania: Projects requiring authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act would be considered as having a federal nexus. Since the U.S. Army Corps of Engineers (Corps) has issued the Pennsylvania State Programmatic General Permit (PASPGP), which may be verified by the PA Department of Environmental Protection or certain Conservation Districts, the need to receive a Corps authorization to perform the work under the PASPGP serves as a federal nexus. As such, if proposing to use the PASPGP, you would answer ‘yes’ to this question.

   Yes

4. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

   Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

   Yes

5. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

   Yes

6. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

   No

7. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

   No

8. Is the lead federal action agency the Natural Resources Conservation Service?

   No

9. Will the proposed project involve the use or storage of herbicide?

   Yes

10. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in burning of plants) or mowing?

    No

11. Will all activities occur within an area that is currently paved, graveled, routinely maintained lawn, and/or inside a structure?

    No

12. Will the proposed project involve demolition, rehabilitation, property elevation, renovation, and/or rebuilding of one or more existing buildings (e.g., residential, commercial and industrial buildings, or utilities)? Note: if project activities include modification of bridges and/or culverts, answer this question "No".

    No

13. Does the project area intersect the boundary of VAFO?

    Automatically answered
    No

14. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **birds** (e.g., plane-based surveys, land-based or offshore wind turbines, new or enlarged communication towers or broadcast towers, high voltage transmission lines, any type of towers with or without guy wires)?

    No

15. Will the proposed project result in **permanent** changes to surface water or groundwater quantity, retention, quality or timing?

    Note: Projects may affect stream flow, surface water, or groundwater through various activities such as; water withdrawal, water recharge, well drilling, infiltration impacts, stormwater outlets, hydropower production, water impoundments, intake structures, stream diversion, mining operations, dams, surface water drainage, or hydroelectric turbines.

    If a project only involves temporary and limited reductions in water that will not displace listed species or significantly alter their water availability (meaning there are no changes to their feeding, breeding, or sheltering), you can answer "No" to this question.

    This question specifically addresses the quantity of water in a stream. Other water quality issues, such as sedimentation and turbidity, will be covered in subsequent questions.

    Yes

16. Does the project include activity in or within 300 feet of a freshwater wetland?

    Note: This encompasses various project activities related to wetlands, including activities taking place within wetlands, activities occurring within 300 feet of wetlands that could impact them, and water withdrawals and/or discharge of contaminants, even if covered by a National Pollutant Discharge Elimination System (NPDES) permit

    Examples of such activities include, but are not limited to; wetland draining, ditching, tilling, filling, excavation, stream diversion, impoundments, mowing, grazing vegetation, construction of access roads, creation of detention basins, installation of water or sewer lines, irrigation, increase of impervious surfaces, and application of pesticides, deicing agents, or fertilizers.

    Yes

17. Will the proposed project involve earth moving or other ground disturbance that could cause erosion and sedimentation, and/or contamination within 300 feet of a freshwater wetland or along a stream?

    Note: Answer "Yes" to this question if erosion and sediment control measures will be used.

    No

18. Will the proposed project impact streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal that could result in ground destabilization, and/or change in site topography?

    Yes

19. Will the proposed project involve vegetation removal within 300 feet of a perennial stream bank where aquatic listed species may be present?

    Yes

20. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project?

    Note: If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

    Yes

21. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

    No

22. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **bats** (e.g., plane-based surveys, land-based or offshore wind)?

    No

23. Will the proposed project affect wetlands in areas where **bats** may be present?

    Yes

24. Will the proposed project involve blasting where bats may be present?

    No

25. Does the project intersect the Indiana bat species list area?

    Automatically answered
    Yes

26. Is the action area within 0.5 mile radius of any known hibernacula (caves or mines) openings or underground features?

    Note: If you are unsure, contact the appropriate Ecological Services Field Office before continuing through the key.

    No

27. Are there any caves, mines, or mine features that are suitable for hibernating Indiana bats within the area expected to be impacted by the project?

    No

28. Are trees present within the action area?

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥5 inches dbh (12.7 centimeter), answer "Yes". If you are unsure, answer “Yes.” Or refer to Appendix A of the Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines for definitions and an assessment form that will assist you in determining if suitable habitat is present within your project's action area. Suitable summer habitat for Indiana bat consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥5 inches dbh (12.7 centimeter) that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat.

    Yes

29. Is the action area within known occupied Indiana bat habitat? Known occupied Indiana bat habitat includes established conservation buffers (10-mile buffer around Phase 1 or Phase 2 hibernacula, 5-mile buffer around Phase 3 or Phase 4 hibernacula; 5-mile buffer around Indiana bat captures or detections; 2.5-mile buffer around known roosts).

    No

30. Has a presence/probable absence bat survey following the Service’s Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines been conducted within the action area?

    No

31. Does the project involve removal or modification of a human-made structure (barn, house, or other building) known or suspected to contain roosting bats? **Note:** Most maintenance and general human disturbance in and around structures will not affect Indiana bats as bats roosting in human structures are adjusted to a certain level of routine noise and are generally expected to roost away from areas with excessive disturbance. Answer 'no' if the proposed action will not include disturbance to human structures known or suspected to contain roosting bats or if the structure does not offer suitable roosting habitat for northern long-eared bats. If unsure, answer 'yes.'

    No

32. Does the project include removal/modification of an existing culvert?

    No

33. Does the project include removal/modification of an existing bridge?

    No

34. Will the project include tree cutting, other means of knocking down or bringing down trees, or tree trimming?

    No

35. Will the project result in the use of prescribed fire?

    No

36. Will the herbicide use include only targeted application methods like spot-spraying, hack-and-squirt, basal bark, injections, cut-stump, or foliar spraying on individual plants?

    Yes

37. Does the project include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?

    No

38. Does the project intersect the Bog Buck Moth Species List Area?

    Automatically answered
    Yes

39. Do you have any other documents that you want to include with this submission?

    No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?

   0

2. Approximately how many total acres of disturbance are within the disturbance/ construction limits of the proposed project?

   2.06

3. Briefly describe the habitat within the construction/disturbance limits of the project site.

   Historic agricultural fields comprised of historic PEM wetlands that will be restored to PSS wetlands

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Jessica Hefferon
Address: 14 Jupiter Lane
Address Line 2: Suite 7
City: Colonie
State: NY
Zip: 12205
Email jhefferon@res.us
Phone: 5858028154

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

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
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: 11/04/2025 16:43:34 UTC
Project code: 2026-0011038
Project Name: Fish Creek Restoration Area

Federal Nexus: yes
Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for 'Fish Creek Restoration Area'

Dear Jessica Hefferon:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on November 04, 2025, for 'Fish Creek Restoration Area' (here forward, Project). This project has been assigned Project Code 2026-0011038 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements may not be complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (DKey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid. Note that conservation measures for northern long-eared bat and tricolored bat may differ. If both bat species are present in the action area and the key suggests more conservative measures for one of the species for your Project, the Project may need to apply the most conservative measures in order to avoid adverse effects. If unsure which conservation measures should be applied, please contact the appropriate Ecological Services Field Office.***

Determination for the Northern Long-Eared Bat and Tricolored Bat

Based on your IPaC submission and a standing analysis completed by the Service, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Northern Long-eared Bat (*Myotis septentrionalis*)	Endangered	NLAA
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	NLAA

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that consultation on the Action is complete for northern long-eared bat and/or tricolored bat and no further action is necessary unless either of the following occurs:

- new information reveals effects of the action that may affect the northern long-eared bat or tricolored bat in a manner or to an extent not previously considered; or,
- the identified action is subsequently modified in a manner that causes an effect to the northern long-eared bat or tricolored bat that was not considered when completing the determination key.

15-Day Review Period

As indicated above, the Service will notify you within 15 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for the northern long-eared bat and/or tricolored bat. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the identified Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that we did not anticipate when developing the key. In such cases, the identified Ecological Services Field Office may request additional information to verify the effects determination reached through the Northern Long-eared Bat and Tricolored Bat DKey.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Bog Buck Moth *Hemileuca maia menyanthevora (=H. iroquois)* Endangered
- Indiana Bat *Myotis sodalis* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened

You may coordinate with our Office to determine whether the Action may affect the species and/or critical habitat listed above. Note that reinitiation of consultation would be necessary if a new species is listed or critical habitat designated that may be affected by the identified action before it is complete.

If you have any questions regarding this letter or need further assistance, please contact the New York Ecological Services Field Office and reference Project Code 2026-0011038 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

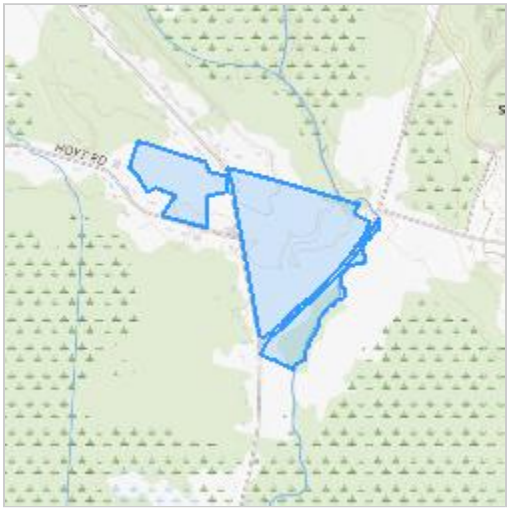
Fish Creek Restoration Area

2. Description

The following description was provided for the project 'Fish Creek Restoration Area':

> Fish Creek Restoration Area is located along Peter Scott Rd in Pennellville, Oswego County, New York. The parcels measure at approximately 60.09 acres in size. The Project is located within the Lake Temalo-Fish Creek watershed (HUC-12 041402020904) and Sixmile Creek watershed (HUC-12 041402020903).

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.2574343,-76.261889035049,14z



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for a least one species covered by this determination key.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

   No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Note for projects in Pennsylvania: Projects requiring authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act would be considered as having a federal nexus. Since the U.S. Army Corps of Engineers (Corps) has issued the Pennsylvania State Programmatic General Permit (PASPGP), which may be verified by the PA Department of Environmental Protection or certain Conservation Districts, the need to receive a Corps authorization to perform the work under the PASPGP serves as a federal nexus. As such, if proposing to use the PASPGP, you would answer ‘yes’ to this question.

   Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

   No

10. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum or winter roost? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

    Automatically answered

    No

11. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

    No

12. Will the action cause effects to a bridge?

    Note: Covered bridges should be considered as bridges in this question.

    No

13. Will the action result in effects to a culvert or tunnel at any time of year?

    No

14. Are trees present within 1000 feet of the action area?

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

15. Does the action include the intentional exclusion of bats from a building or building-like structure? **Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

    No

16. Does the action involve removal, modification, or maintenance of a human-made building-like structure (barn, house, or other building) **known or suspected to contain roosting bats?**

    No

17. Will the action cause construction of one or more new roads open to the public?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

    No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

20. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

    Note: For information regarding NSF/ANSI 60 please visit https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects

    No

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

    No

22. Will the proposed action involve blasting or drilling?

    No

23. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use at night)?

    No

24. Will the proposed action involve the use of herbicides or pesticides (e.g., fungicides, insecticides, or rodenticides)?

    Yes

25. Will the action include or result in herbicide use that may affect suitable summer habitat for the northern long-eared bat or tricolored bat?

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    No

26. Will the action include or cause the application or drift of pesticides (e.g., fungicides, insecticides, or rodenticides) into forested areas that are suitable summer habitat for the northern long-eared bat or tricolored bat?

    Answer "Yes" if the application may result in transport (e.g., in water) or aerial drift of the pesticide into forested areas that are suitable summer habitat for the northern long-eared bat or tricolored bat.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    No

27. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

    Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    No

28. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    No

29. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

    No

30. Will the proposed action result in the use of prescribed fire?

    Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

    No

31. Does the action area intersect the northern long-eared bat species list area?

    Automatically answered
    Yes

32. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known NLEB hibernacula or winter roost? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

33. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

34. [Semantic] Is the action area located within 150 feet of a documented northern long-eared bat roost site?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.Have you contacted the appropriate agency to determine if your action is within 150 feet of any documented northern long-eared bat roosts?

    Note: A document with links to Natural Heritage Inventory databases and other state-specific sources of information on the locations of northern long-eared bat roosts is available here. Location information for northern long-eared bat roosts is generally kept in state natural heritage inventory databases – the availability of this data varies by state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited.

    Automatically answered
    No

35. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?
    If unsure, answer "Yes."

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

36. Has a presence/probable absence summer bat survey targeting the northern long-eared bat following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines been conducted within the project area?

    No

37. Does the action area intersect the tricolored bat species list area?

    Automatically answered
    Yes

38. Is the action area located within 0.5-mile of radius of an entrance/opening to any known tricolored bat hibernacula or winter roost?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

    Automatically answered
    No

39. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

40. Has a presence/probable absence bat survey targeting the tricolored bat and following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines been conducted within the project area?

    No

41. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities?
    (If unsure, answer ""Yes."")

    Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (Tillandsia usneoides), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see Appendix A in the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines.

    Yes

42. Do you have any documents that you want to include with this submission?

    No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Jessica Hefferon
Address: 14 Jupiter Lane
Address Line 2: Suite 7
City: Colonie
State: NY
Zip: 12205
Email jhefferon@res.us
Phone: 5858028154

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

Environmental Resource Mapper

The coordinates of the point you clicked on are:

UTM 18	**Easting:**	397565.6145612331	**Northing:**	4790070.647373983
Longitude/Latitude	**Longitude:**	-76.26199264906658	**Latitude:**	43.25649249938806

The approximate address of the point you clicked on is:
1-73 Sutton Rd, Pennellville, New York, 13132

County: Oswego
Town: Schroeppel
USGS Quad: PENNELLVILLE

Rare Plants and Rare Animals

This location is in the vicinity of Bats Listed as Endangered or Threatened -- Contact NYSDEC Regional Office

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

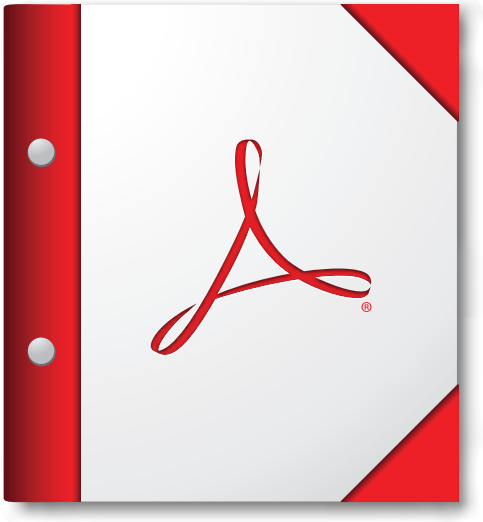
If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

Print Preview



For the best experience, open this PDF portfolio in Acrobat X or Adobe Reader X, or later.

Get Adobe Reader Now!

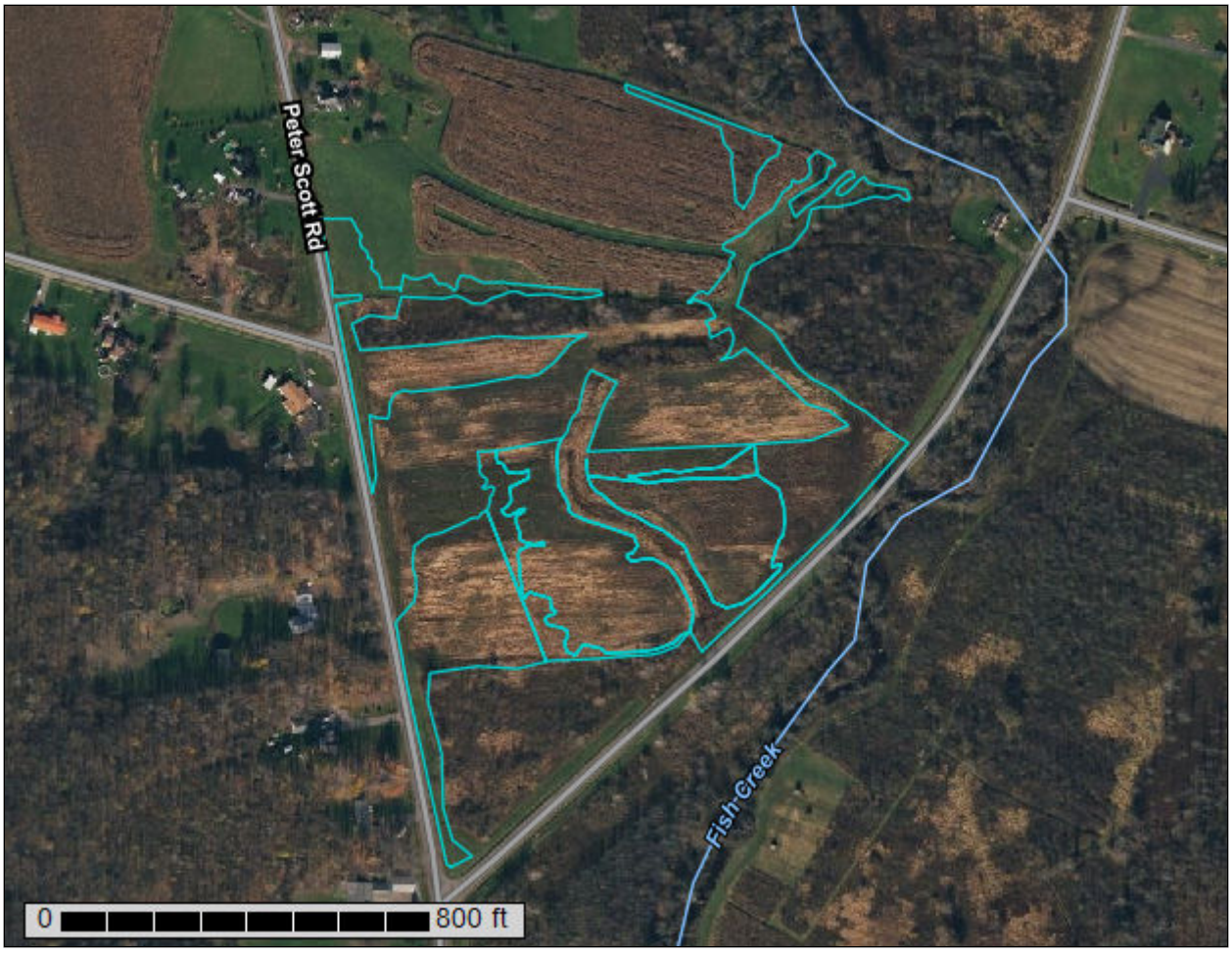
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Oswego County, New York



November 5, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Oswego County, New York.....13
Cd—Canandaigua silt loam.....13
HuC—Hudson silt loam, 6 to 12 percent slopes.....14
References.....16

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

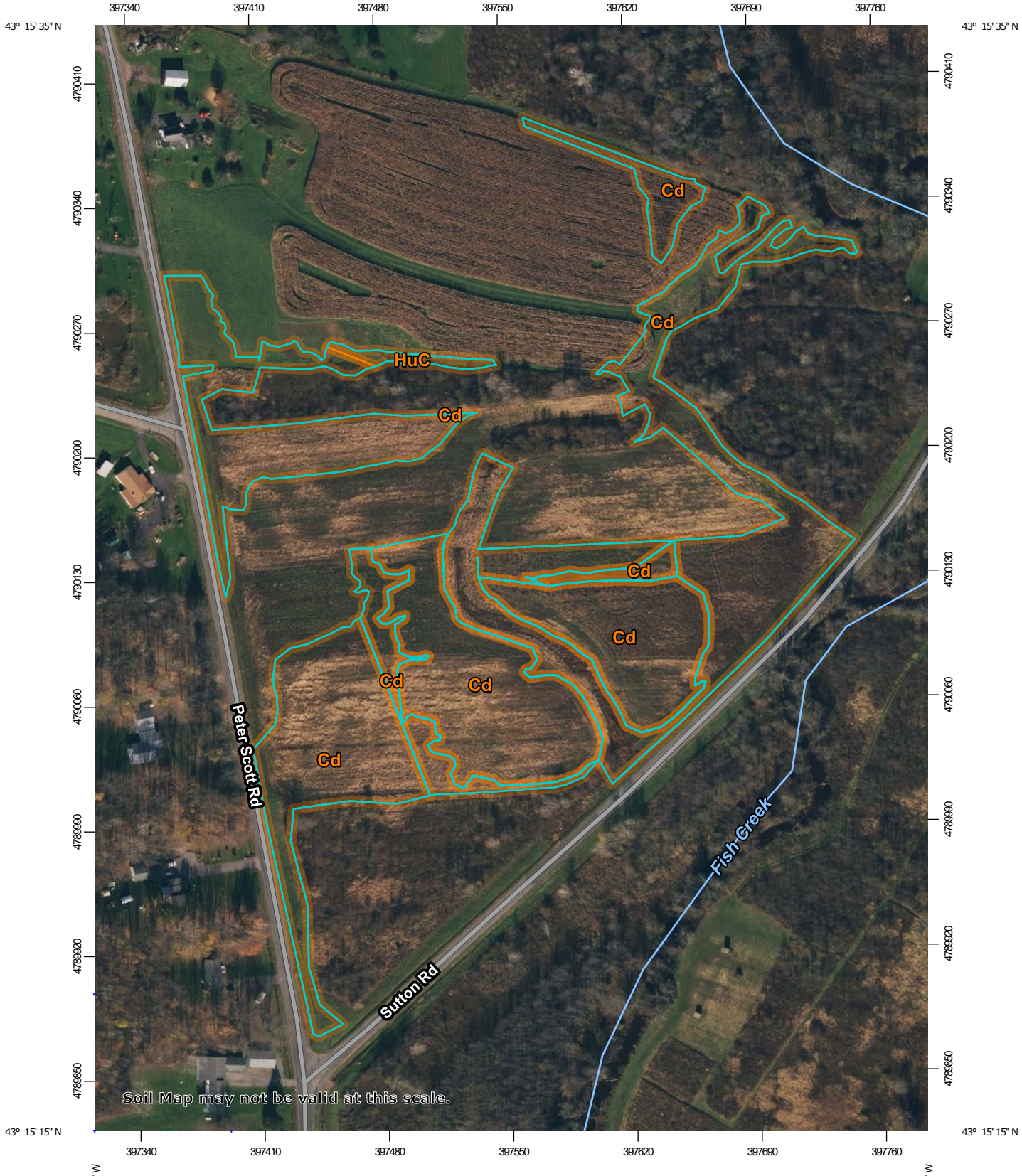
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:3,020 if printed on A portrait (8.5" x 11") sheet.

N

0 40 80 160 240 Meters

0 100 200 400 600 Feet

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

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

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

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

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

Soil Survey Area: Oswego County, New York
Survey Area Data: Version 26, Sep 4, 2025

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

Date(s) aerial images were photographed: Aug 3, 2021—Nov 7, 2021

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Cd	Canandaigua silt loam	12.7	99.0%
HuC	Hudson silt loam, 6 to 12 percent slopes	0.1	1.0%
Totals for Area of Interest		**12.8**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Oswego County, New York

Cd—Canandaigua silt loam

Map Unit Setting

National map unit symbol: 9w14
Elevation: 100 to 1,000 feet
Mean annual precipitation: 38 to 45 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 120 to 190 days
Farmland classification: Not prime farmland

Map Unit Composition

Canandaigua and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Canandaigua

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Silty and clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 7 inches: silt loam
H2 - 7 to 33 inches: silt loam
H3 - 33 to 50 inches: stratified silt to very fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: C/D
Ecological site: F101XY010NY - Wet Lake Plain Depression
Hydric soil rating: Yes

Minor Components

Rhinebeck

Percent of map unit: 5 percent
Hydric soil rating: No

Madalin
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Raynham
Percent of map unit: 5 percent
Hydric soil rating: No

Lamson
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Palms
Percent of map unit: 5 percent
Landform: Marshes, swamps
Hydric soil rating: Yes

HuC—Hudson silt loam, 6 to 12 percent slopes

Map Unit Setting
National map unit symbol: 9w1t
Elevation: 300 to 1,800 feet
Mean annual precipitation: 38 to 45 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 120 to 190 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Hudson and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hudson

Setting
Landform: Lake plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Clayey and silty glaciolacustrine deposits

Typical profile
H1 - 0 to 6 inches: silt loam
H2 - 6 to 14 inches: silty clay loam
H3 - 14 to 38 inches: silty clay
H4 - 38 to 50 inches: silty clay

Properties and qualities

Slope: 6 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Moderate (about 7.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Ecological site: F101XY009NY - Moist Lake Plain
Hydric soil rating: No

Minor Components

Williamson

Percent of map unit: 5 percent
Hydric soil rating: No

Rhinebeck

Percent of map unit: 5 percent
Hydric soil rating: No

Raynham

Percent of map unit: 5 percent
Hydric soil rating: No

Amboy

Percent of map unit: 5 percent
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

APPENDIX D
DESIGN PLANS

FISH CREEK RESTORATION SITE DESIGN PLAN

TOWN OF SCHROEPPEL, OSWEGO COUNTY, NEW YORK

1. PROJECT DESCRIPTION:
HGS, LLC, A FULLY-OWNED SUBSIDIARY OF RESOURCE ENVIRONMENTAL SOLUTIONS, LLC (RES) IS PROPOSING THIS PERMITTEE-RESPONSIBLE MITIGATION (PRM) PLAN ON BEHALF OF ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENTAL PROTECTION TO COMPENSATE FOR UNAVOIDABLE IMPACTS TO WATERS OF THE UNITED STATES AND NEW YORK STATE REGULATED WETLANDS ASSOCIATED WITH THE OAK ORCHARD WASTE WATER TREATMENT PLANT UPDATES INCLUDING THE INDUSTRIAL TREATMENT TRAIN AND THE CONVEYANCE CORRIDOR (PROJECT). THE PROPOSED MITIGATION WILL INCLUDE THE REESTABLISHMENT, ENHANCEMENT AND RESTORATION OF WETLANDS, AND THE ENHANCEMENT OF ADJACENT UPLAND AREAS IN THE TOWN OF PENNELLVILLE, OSWEGO COUNTY, NY. THE MITIGATION WILL OFFSET PERMANENT IMPACTS TO PALUSTRINE SCRUB-SHRUB (PSS) AND PALUSTRINE FORESTED (PFO) WETLANDS, PERMANENT IMPACTS TO ADJACENT UPLAND AREAS, AND TEMPORARY CONVERSION IMPACTS TO PALUSTRIAN FORESTED (PFO) WETLANDS.

2. SITE ADDRESS:
274 PETER SCOTT RD.
PENNELLVILLE, NY 13132

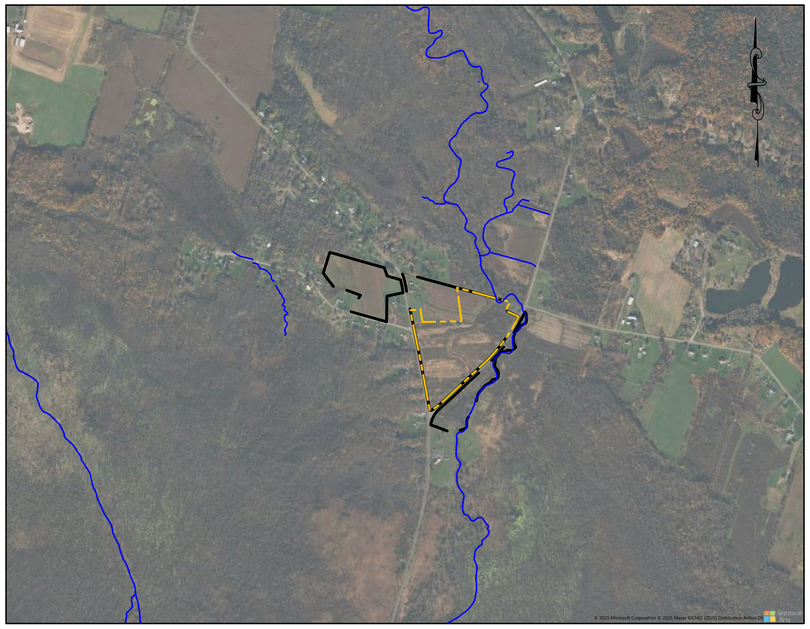
3. SITE COORDINATES:
LATITUDE: 43° 15' 23.76" (43.2566)
LONGITUDE: 76° 15' 43.2" (-76.2620)

4. SPONSOR:
HGS, LLC
ATTN: HEATHER GUMB
14 JUPITER LANE, SUITE 7
ALBANY, NY 12205
EMAIL: HGUMB@RES.US
PHONE: (718) 873-4906

5. LANDOWNERS:
5.1. STAATS, RAYMOND W.
103 CHATHAM PASS
TRENT WOODS, NC 28562
PARCEL ID: 290.00-02-55

6. SURVEY INFORMATION:
6.1. EXISTING SURFACE CONTOUR DATA ACQUIRED FROM USGS TOPOGRAPHIC MAPS (WWW.USGS.GOV)
6.2. EXISTING PARCEL DATA ACQUIRED FROM OSWEGO COUNTY GIS ON THE PARCEL VIEWER WORKSPACE (HTTPS://OSWEGOGIS.MAPS.ARCGIS.COM/HOME/INDEX.HTML)

7. SITE AREA:
7.1. PROJECT PARCEL AREA: 77.82 ACRES
7.2. SITE PROTECTION BOUNDARY: 29.58 ACRES

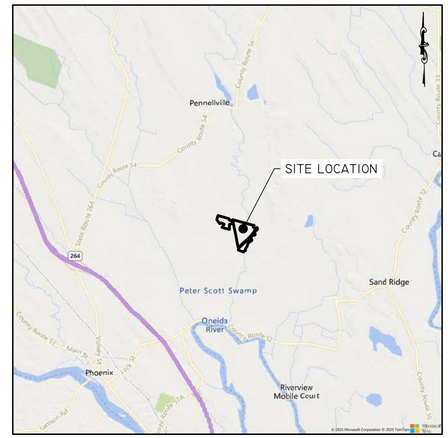


SITE LOCATION MAP
COORDINATE SYSTEM: NY83-CF

0 1000 2000 4000 FEET

SCALE: 1" = 1000'

MAP LEGEND	
PROPERTY BOUNDARY	
SITE PROTECTION BOUNDARY	
EXISTING THALWEG	

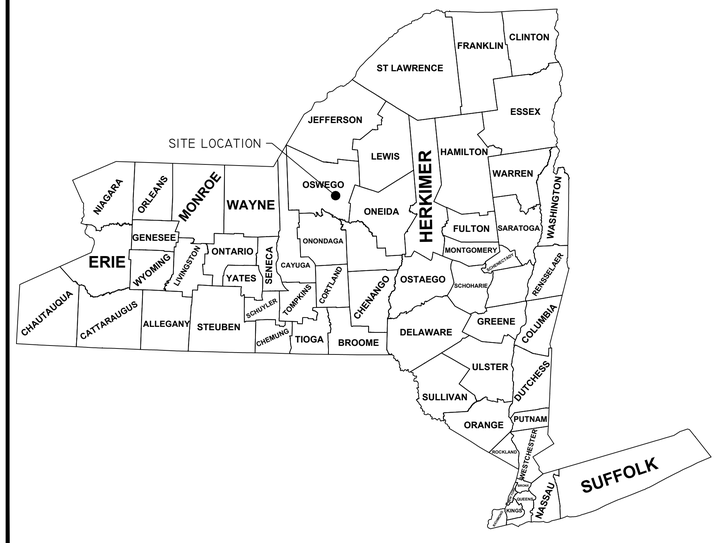


PROJECT LOCATION MAP

0 5000 10000 20000 FEET

SCALE: 1" = 5000'

SHEET INDEX	
SHEET #	SHEET TITLE
C000	COVER SHEET
C100	EXISTING CONDITIONS
C300	PROPOSED DESIGN
C600	PROPOSED CROSS SECTIONS
C800	CONSTRUCTION DETAILS
C801	CONSTRUCTION DETAILS
C802	CONSTRUCTION DETAILS
C900	PROPOSED SITE RESTORATION PLAN
C901	PLANTING LIST
C902	PROPOSED SITE RESTORATION DETAILS
V100	EARTHWORK CUT/FILL VOLUMES



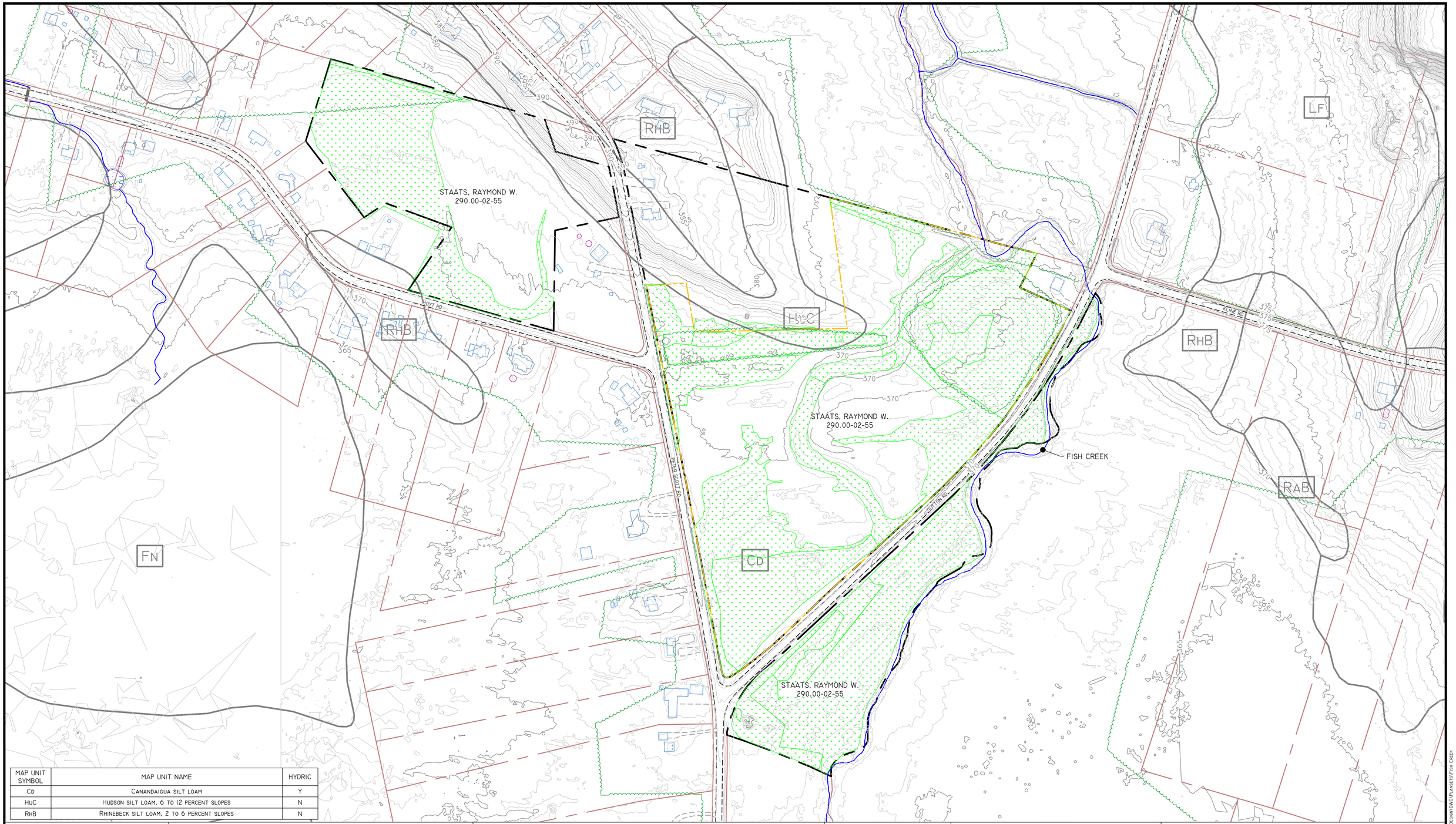
HGS, LLC.
ATTN: HEATHER GUMB
EMAIL: HGUMB@RES.US
PHONE: (718) 873-4906
14 JUPITER LANE, SUITE 7
ALBANY, NY 12205

REVISIONS

NO.	DESCRIPTION	DATE	BY

FISH CREEK RESTORATION SITE DESIGN PLAN
NEW YORK
OSWEGO COUNTY
TOWN OF SCHROEPPEL
PROJECT NO: 13375
SHEET: C000
DRAWN BY: KH
CHECKED BY: HG
APPROVED BY:
DATE: NOVEMBER 10, 2025

R:\RESCAD\PROJECTS\13375 - OAK ORCHARD WWT PRM\DESIGN\DWG\PLANSETS\FISH CREEK RESTORATION\C000.DWG
11:25 AM 2025/11/10
COORDINATE SYSTEM: NY83-CF



MAP UNIT SYMBOL	MAP UNIT NAME	HYDRIC
CD	CANANDAIGUA SILT LOAM	Y
HUC	HUDSON SILT LOAM, 6 TO 12 PERCENT SLOPES	N
RHB	RHINEBECK SILT LOAM, 2 TO 6 PERCENT SLOPES	N

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- SITE PROTECTION BOUNDARY
- EXISTING THALWEG
- EXISTING WETLANDS
- EXISTING STRUCTURES
- ROAD
- ACCESS PATH
- TREE LINE
- OPEN WATER
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- SOIL BOUNDARY

NOTES

SEAL

SCALE

0 150 300 600 Feet

SCALE 1" = 150'

RESOURCE ENVIRONMENTAL SOLUTIONS
14 JUPITER LANE , SUITE 7
ALBANY, NY 12205
WWW.RES.US
TELEPHONE: (718) 873-4906
EMAIL: HGUMB@RES.US

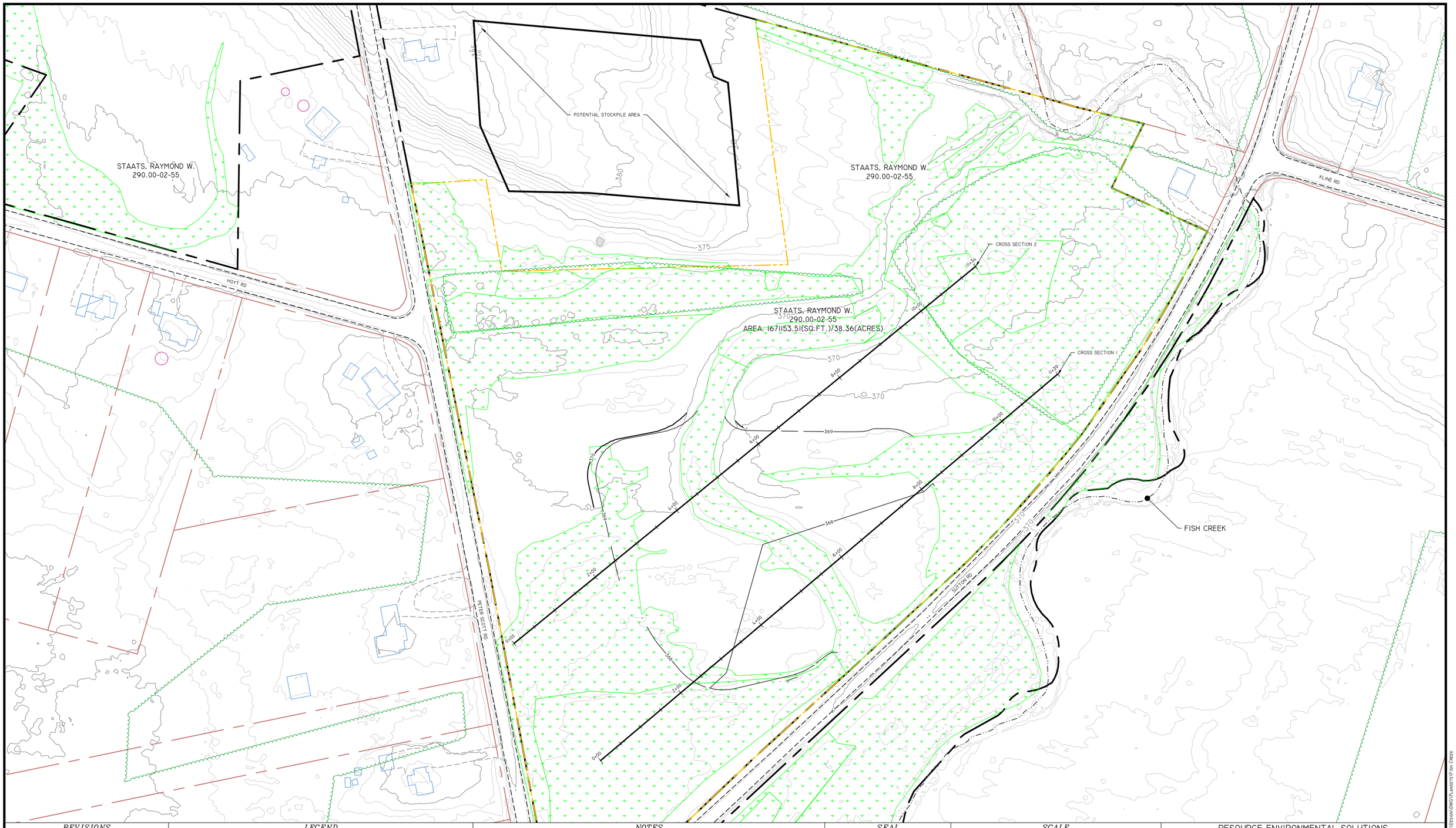
res

FISH CREEK RESTORATION SITE
DESIGN PLAN

EXISTING CONDITIONS

DRAWN BY:	KH	NEW YORK	
CHECKED BY:	NH	OSWEGO COUNTY	TOWN OF SCHROEPPEL
APPROVED BY:	HG	SHEET: C100	PROJECT NO: 113375
DATE:	NOVEMBER 10, 2025		COORDINATE SYSTEM: NY83-CF

R:\RESCAD\PROJECTS\113375 - OAK ORCHARD WWT PRM\DESIGN\DWG\PLANSETS\FISH CREEK
11:11 AM NOVEMBER 25
COORDINATE SYSTEM: NY83-CF



REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- SITE PROTECTION BOUNDARY
- EXISTING THALWEG
- EXISTING WETLANDS
- EXISTING STRUCTURES
- ROAD
- ACCESS PATH
- TREE LINE
- OPEN WATER
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR

NOTES

STAATS, RAYMOND W.
290.00-02-55

SEAL

SCALE

0 150 300 600 Feet

SCALE 1" = 150'

RESOURCE ENVIRONMENTAL SOLUTIONS
14 JUPITER LANE , SUITE 7
ALBANY, NY 12205
WWW.RES.US
TELEPHONE: (718) 873-4906
EMAIL: HGUMB@RES.US

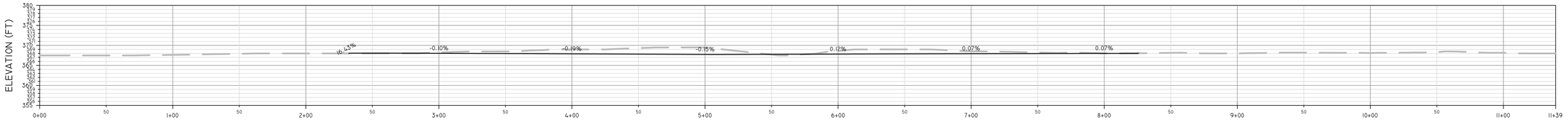
res

FISH CREEK RESTORATION SITE
DESIGN PLAN

PROPOSED DESIGN

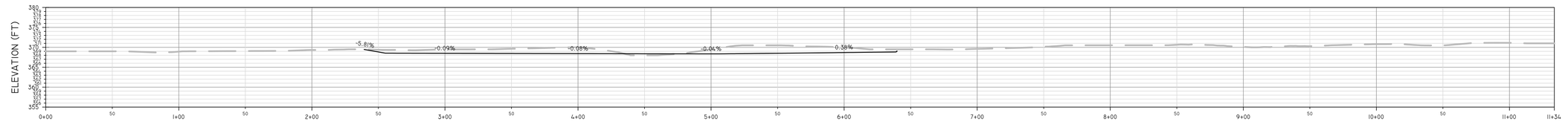
DRAWN BY:	KH	NEW YORK	
CHECKED BY:	NH	OSWEGO COUNTY	TOWN OF SHROEPPEL
APPROVED BY:	HG	SHEET: C300	PROJECT NO: 113375
DATE:	NOVEMBER 10, 2025		COORDINATE SYSTEM: NY83-CF

R:\RESCAD\PROJECTS\113375 - OAK ORCHARD WWT PRM\DESIGN\DWG\PLANSETS\FISH CREEK
11:19 AM NOVEMBER 25
COORDINATE SYSTEM: NY83-CF



STATION

CROSS SECTION 1



STATION

CROSS SECTION 2

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

EXISTING GROUND PROFILE

PROPOSED GRADING PROFILE

NOTES

SEAL

SCALE

0 40 80 160 Feet

SCALE 1" = 40'

RESOURCE ENVIRONMENTAL SOLUTIONS

14 JUPITER LANE , SUITE 7
ALBANY, NY 12205
WWW.RES.US

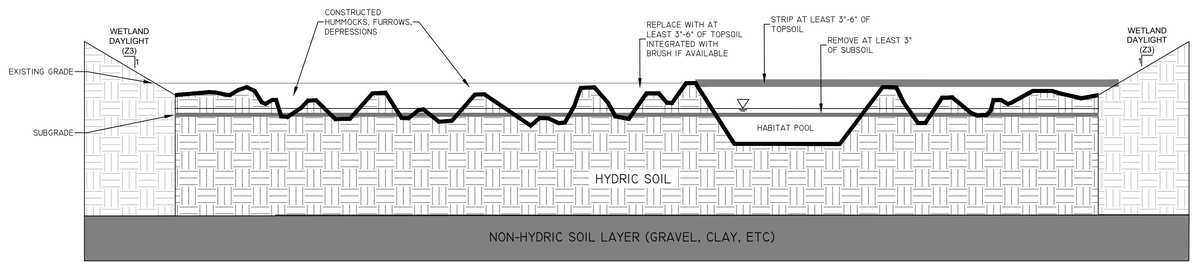
TELEPHONE: (718) 873-4906 EMAIL: HGUMB@RES.US

FISH CREEK RESTORATION SITE
DESIGN PLAN

PROPOSED CROSS SECTIONS

DRAWN BY:	KH	NEW YORK	
CHECKED BY:	NH	OSWEGO COUNTY	TOWN OF SHROEPPEL
APPROVED BY:	HG	SHEET: C600	PROJECT NO: 113375
DATE:	NOVEMBER 10, 2025		COORDINATE SYSTEM: NY83-CF

R:\DECAD\PROJECTS\113375 - OAK ORCHARD WWT PRM\DESIGN\DWG\PLANSETS\FISH CREEK
LAST MODIFIED BY:
COORDINATE SYSTEM: NY83-CF



SECTION VIEW

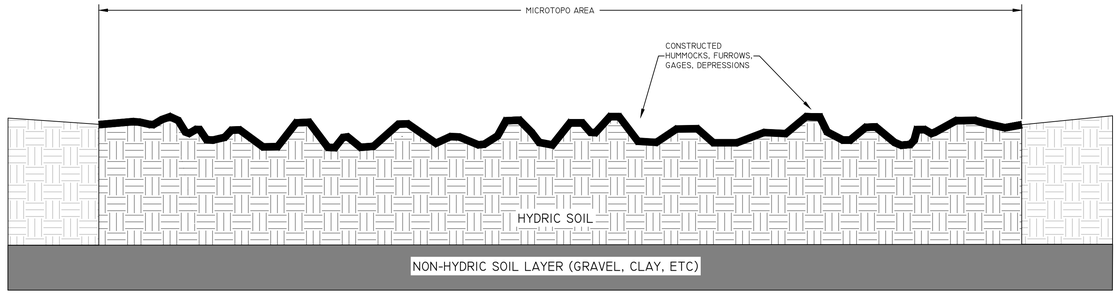
NOTES:
1. MICROTOPOGRAPHY WILL BE STRATEGICALLY IMPLEMENTED/CREATED AT LOCATIONS DESIGNATED ON PLANS BASED ON TOPOGRAPHIC AND HYDROLOGIC FEASIBILITY.
2. MICROTOPOGRAPHY WILL ONLY OCCUR WITHIN THE HYDRIC SOIL LAYER. ANY GRAVEL, COBBLE, AND/OR CLAY SOIL LAYERS THAT EXIST BENEATH A HYDRIC SOIL LAYER SHALL NOT BE DISTURBED.
3. APPROXIMATELY 80% OF SURFACE AREA WILL BE ROUGHENED BY RAKING, TILLING, DISCING, AND/OR SCARIFYING UP TO A DEPTH OF AT LEAST 6 INCHES.
4. HUMMOCKS, GOUGES, FURROWS AND DEPRESSIONS WILL BE CONSTRUCTED BY DISRUPTING SURFACE DRAINAGE TO CREATE POCKETS OF WATER.
5. SLOPES IN AND AROUND SMALL DEPRESSIONS SHALL BE 10:1 OR LESS.
6. TOPSOIL SHALL BE STRIPED A MINIMUM 3 TO 6 INCHES. AFTER TOPSOIL IS STRIPPED, REMOVE 3 INCHES OF SUBSOIL AND REPLACE MINIMUM 3 TO 6 INCHES OF TOPSOIL COVERAGE
7. .FOLLOWING REPLACEMENT OF TOPSOIL, AVERAGE DEPRESSION DEPTH SHALL BE 6" - 18". DEPRESSION BOTTOMS WILL NOT BE SMOOTH GRADED, DEPTH CAN VARY WITHIN THE POOL. SIZE OF DEPRESSIONS SHALL VARY ACROSS SITE. SHAPE OF DEPRESSION SHALL BE IRREGULAR AND VARY.
8. THE PROJECT ENGINEER OR CONSTRUCTION MANAGER MAY ADJUST THE PROPOSED GRADING AND STRUCTURES IF SOILS, HYDROLOGY, AND TOPOGRAPHY ENCOUNTERED DURING CONSTRUCTION WARRANT MODIFICATION TO ENSURE SUCCESSFUL STREAM AND WETLAND PERFORMANCE.

NOTE ON TILE DRAINS:
1. IF DRAIN TILES ARE DISCOVERED DURING THE RESTORATION PROCESS, DRAIN TILES WILL BE BROKEN IN 6' LONG SECTIONS SPACED OUT AT 10' MIN LENGTH. IF DRAIN OUTLETS TO AN EXISTING STREAM CHANNEL, THE OUTLET OF THE DRAIN WILL BE REMOVED AND THE EXISTING BANKS WILL BE RE-GRADED AT 3:1 MIN. THE CONTRACTOR WILL TRENCH THE AREA AROUND THE TILE TO REMOVE THE 6' MIN SECTION.
2. ONCE REMOVED, BOTH THE SEARCH TRENCH AND TILE TRENCH SHALL BE BACKFILLED WITH SUITABLE MATERIALS WHICH WILL REMAIN FREE OF SOD, FROZEN SOIL, STONES LARGER THAN 6" AND ANY WASTE MATERIAL. IN THE EVENT THE TILE SEARCH ENCOUNTERS UNSUITABLE MATERIAL SUCH AS SAND OR GRAVEL, SUITABLE CLAY MATERIAL WILL BE USED AS BACKFILL.

C-1 / C800

MICROTOPO (WETLAND RE-ESTABLISHMENT)

NOT TO SCALE



SECTION VIEW

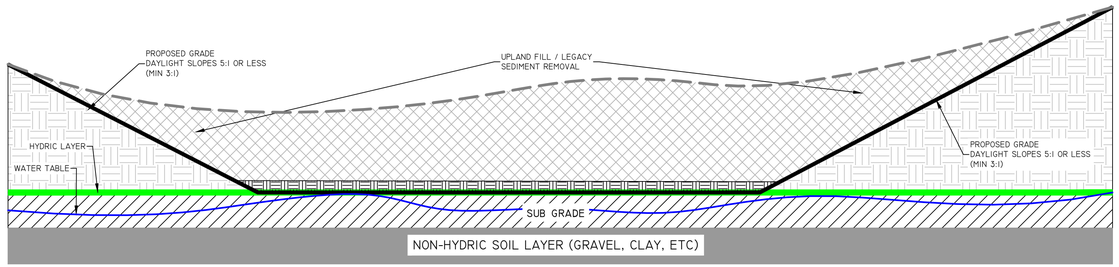
NOTES:
1. MICROTOPOGRAPHY WILL BE STRATEGICALLY IMPLEMENTED/CREATED AT LOCATIONS DESIGNATED ON PLANS BASED ON TOPOGRAPHIC AND HYDROLOGIC FEASIBILITY.
2. MICROTOPOGRAPHY WILL ONLY OCCUR WITHIN THE HYDRIC SOIL LAYER. ANY GRAVEL, COBBLE, AND/OR CLAY SOIL LAYERS THAT EXIST BENEATH A HYDRIC SOIL LAYER SHALL NOT BE DISTURBED.
3. APPROXIMATELY 80% OF SURFACE AREA WILL BE ROUGHENED BY RAKING, TILLING, DISCING, AND/OR SCARIFYING UP TO A DEPTH OF AT LEAST 6 INCHES.
4. HUMMOCKS, GOUGES, FURROWS AND DEPRESSIONS WILL BE CONSTRUCTED BY DISRUPTING SURFACE DRAINAGE TO CREATE POCKETS OF WATER.
5. SLOPES IN AND AROUND SMALL DEPRESSIONS SHALL HAVE MAXIMUM SLOPE OF 10:1 AND NO LESS THAN 5 OF PERIMETER THAN HAVE SLOPES STEEPER THAN 15:1.
6. AVERAGE DEPRESSION DEPTH SHALL BE 6" - 18". DEPRESSION BOTTOMS WILL NOT BE SMOOTH GRADED, DEPTH CAN VARY WITHIN THE POOL. SIZE OF DEPRESSIONS SHALL VARY ACROSS SITE. SHAPE OF DEPRESSION SHALL BE IRREGULAR AND VARY.

NOTE ON TILE DRAINS:
1. IF DRAIN TILES ARE DISCOVERED DURING THE RESTORATION PROCESS, DRAIN TILES WILL BE BROKEN IN 6' LONG SECTIONS SPACED OUT AT 10' MIN LENGTH. IF DRAIN OUTLETS TO AN EXISTING STREAM CHANNEL, THE OUTLET OF THE DRAIN WILL BE REMOVED AND THE EXISTING BANKS WILL BE RE-GRADED AT 3:1 MIN. THE CONTRACTOR WILL TRENCH THE AREA AROUND THE TILE TO REMOVE THE 6' MIN SECTION.
2. ONCE REMOVED, BOTH THE SEARCH TRENCH AND TILE TRENCH SHALL BE BACKFILLED WITH SUITABLE MATERIALS WHICH WILL REMAIN FREE OF SOD, FROZEN SOIL, STONES LARGER THAN 6" AND ANY WASTE MATERIAL. IN THE EVENT THE TILE SEARCH ENCOUNTERS UNSUITABLE MATERIAL SUCH AS SAND OR GRAVEL, SUITABLE CLAY MATERIAL WILL BE USED AS BACKFILL.

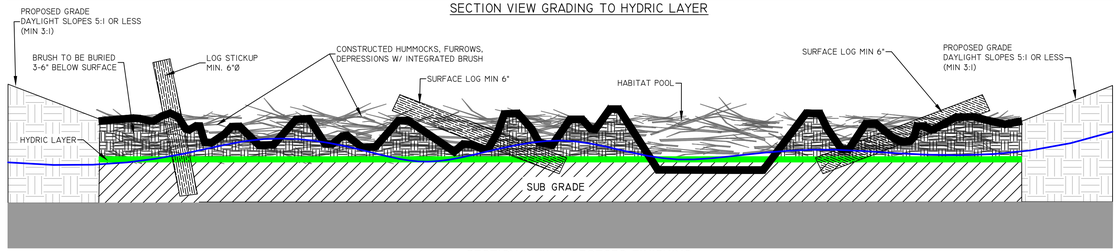
C-3 / C800

MICROTOPO (WETLAND REHABILITATION)

NOT TO SCALE



SECTION VIEW GRADING TO HYDRIC LAYER



SECTION VIEW MICROTOPO FINISHING

NOTES:
1. WETLAND GRADING WILL BE STRATEGICALLY IMPLEMENTED/CREATED AT LOCATIONS DESIGNATED ON PLANS BASED ON TOPOGRAPHIC AND HYDROLOGIC FEASIBILITY.
2. EXISTING NON-HYDRIC SOILS WILL BE REMOVED TO EXPOSE THE HISTORIC HYDRIC SOIL LAYER. ANY GRAVEL, COBBLE, AND/OR CLAY SOIL LAYERS THAT EXIST BENEATH A HYDRIC SOIL LAYER SHALL NOT BE DISTURBED.
3. ONCE THE HYDRIC LAYER IS EXPOSED THE AREA WILL BE REDRESSED WITH SUBSURFACE BRUSH AND TOPSOIL.
4. HABITAT ELEMENTS SUCH AS SURFACE BRUSH, WOODY DEBRIS, POOLS, LOG STICK UPS, HUMMOCKS, GOUGES, FURROWS AND DEPRESSIONS ARE TO BE INCORPORATED.
5. LOGS ARE TO BE PLACED 5 STICKUPS 5 SURFACE LOGS PER 1 ACRE
6. THE PROJECT ENGINEER OR CONSTRUCTION MANAGER MAY ADJUST THE PROPOSED GRADING AND STRUCTURES IF SOILS, HYDROLOGY, AND TOPOGRAPHY ENCOUNTERED DURING CONSTRUCTION WARRANT MODIFICATION TO ENSURE SUCCESSFUL STREAM AND WETLAND PERFORMANCE.

C-2 / C800

WETLAND RE-ESTABLISHMENT GRADING W/ MICROTOPO FINISHING

NOT TO SCALE

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

NOTES

SEAL

SCALE

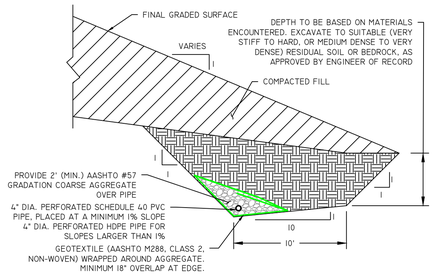
RESOURCE ENVIRONMENTAL SOLUTIONS
14 JUPITER LANE - SUITE 7
ALBANY, NY 12205
WWW.RES.US
TELEPHONE: (718) 873-4906
EMAIL: HGUMB@RES.US

FISH CREEK RESTORATION SITE
DESIGN PLAN

CONSTRUCTION DETAILS

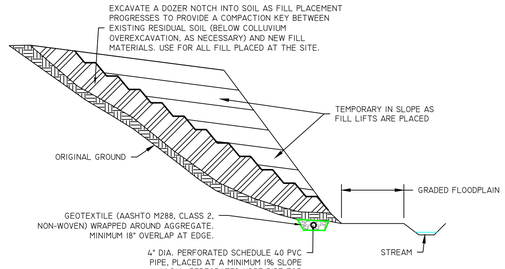
DRAWN BY:	KH	NEW YORK	
CHECKED BY:	NH	OSWEGO COUNTY	TOWN OF SHROEPPEL
APPROVED BY:	HG	SHEET: C800	PROJECT NO: 113375
DATE:	NOVEMBER 10, 2025		COORDINATE SYSTEM: NY83-CF

R:\RES-DATA\PROJECTS\113375 - OAK ORCHARD WWT PRM\DESIGN\DWGS\PLANSETS\FISH CREEK RES ARCHIVE\C800.DWG
COORDINATE SYSTEM: NY83-CF

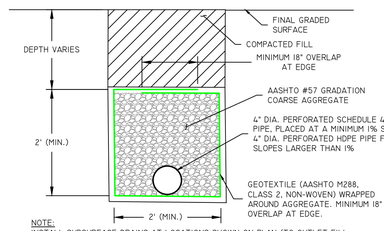


NOTES:
1. OUTLET FILL FOUNDATION KEY DRAIN BEYOND THE LIMITS OF NEW FILL USING SUBSURFACE DRAIN INSTALLED AT LOCATIONS SHOWN ON PLAN.
2. DEEPER FILL KEYS (IF REQUIRED) SHOULD TRANSITION GRADUALLY INTO SHALLOWER FILL KEYS.
3. KEY DRAINS SHOULD OUTLET BEYOND THE LIMITS OF THE NEW FILL AND TO A STABLE AREA.

TYPICAL FILL FOUNDATION KEY

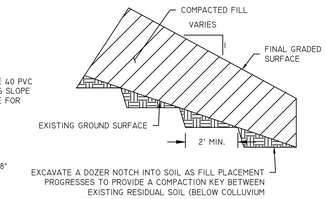


TYPICAL VALLEY EDGE FILL FLOODPLAIN RESTORATION



NOTE:
INSTALL SUBSURFACE DRAINS AT LOCATIONS SHOWN ON PLAN (TO OUTLET FILL FOUNDATION KEY DRAINS) AND AT SEEPAGE AREAS ENCOUNTERED DURING CONSTRUCTION. OUTLET DRAINS BEYOND LIMITS OF NEW FILL OR CONNECT TO FILL KEY DRAINS.

TYPICAL SUBSURFACE DRAIN



TYPICAL COMPACTION KEY

NOTES:
1. CONSTRUCT FILL FOUNDATION AND INTERMEDIATE KEYS AS NEEDED FOR SIGNIFICANT FILLS. OUTLET FILL FOUNDATION AND INTERMEDIATE KEY DRAIN USING THE SUBSURFACE DRAIN INSTALLED AT LOCATIONS SHOWN ON PLAN. INSTALL ADDITIONAL SUBSURFACE DRAINS AS NECESSARY. FINAL KEY AND DRAIN LOCATIONS MAY BE MODIFIED BY THE ONSITE CONSTRUCTION MANAGER OR ENGINEER OF RECORD.
2. REFER TO EROSION AND SEDIMENTATION CONTROL PLAN CONSTRUCTION SEQUENCE FOR REMOVAL OF TOPSOIL PRIOR TO FILL PLACEMENT.
3. NEW FILL SHALL BE FREE OF TOPSOIL, ROOTS, ROOT BALLS, BRUSH, GRASS, AND OTHER DELETERIOUS MATERIALS.
4. FIELD MODIFY FINAL GRADES BASED ON FIELD CONDITIONS TO ACHIEVE A BALANCED SITE AS DIRECTED BY OWNER'S FIELD REPRESENTATIVE.

C-4
C801

GEOTECHNICAL DETAILS

NOT TO SCALE

TABLE 8.11 ALLOWABLE SHEAR STRESSES FOR VARIOUS LININGS

LINING CATEGORY	LINING TYPE	ALLOWABLE INIT SHEAR STRESS	
		PA	LB/SQ.FT.
UNLINED - EASILY ERODID SOILS (1)	SILTS, FINE-MEDIUM SANDS	1.4	0.03
	COARSE SANDS	1.9	0.04
	VERY COARSE SANDS	2.4	0.05
UNLINED - EROSION RESISTANT SLILS (2)	FINE GRAVEL	4.8	0.1
	CLAY LOAM	12	0.25
	SILTY CLAY LOAM	8.6	0.18
	SANDY CLAY LOAM	4.8	0.1
	LOAM	3.4	0.07
	SILT LOAM	5.7	0.12
	SANDY LOAM	1	0.02
	GRAVELY, STONY, CHANNERY LOAM	2.4	0.05
	STONY OR CHANNERY SILT LOAM	3.4	0.07
NON-REINFORCED VEGETATION	CLASS A	177.2	3.7
	CLASS B	100.6	2.1
	CLASS C	47.9	1
	CLASS D	28.7	0.6
	CLASS E	16.8	0.35
TEMPORARY RECP'S (3/4)	MULCH CONTROL NETTING (3)	SEE TABLE 8.15	
	NETLESS ROLLED EROSION CONTROL BLANKET (5)		
	OPEN WEAVE TEXTILE		
	SINGLE-NET EROSION CONTROL BLANKET		
	DOUBLE-NET EROSION CONTROL BLANKET		
PERMANENT RECP'S (3/4)	TURF REINFORCMENT MAT - TYPE 5.A	288	6
	TURF REINFORCMENT MAT - TYPE 5.B	384	8
	TURF REINFORCMENT MAT - TYPE 5.C	480	10
RIPRAP LINIG	R-3	48	1
	R-4	96	2
	R-5	144	3
	R-6	192	4
	R-7	240	5
	R-8	384	8
	GABION - 305 mm (12 in)	225	4.7
	GABION - 457 mm (18 in)	249	5.2
	GABION - 914 mm (36 in)	397	8.3
	RENO MATTRESS - 152 mm (6 in)	206	4.3
	RENO MATTRESS - 229 mm (9 in)	220	4.6

1 SOILS HAVING AN ERODIBILTY K FACTOR GREATER THAN 0.37
2 SOILS HACING AN ERODIBILITY K FACTOR LESS THAN OR EQUAL TO 0.37
CATERGORIES ARE BASED ON FHWA CLASSIFICATION SYSTEM FOR RECP'S
4 THE DIFFERENCE BETWEEN THE THREE TYPES OF TRM'S IS THE MINIMUM TENSILE STRENGTH
5 FEW, IF ANY, OF THESE ARE APPROVED FOR PENNDOT USE

ROCK SIZING & GRADATION

PERCENT PASSING (SQUARE OPENINGS)						
CLASS, SIZE NO. (NCSA)	**R-8**	**R7**	**R6**	**R5**	**R4**	**R3**
ROCK SIZE, INCHES						
42	100*					
30		100*				
24	15-50		100*			
18		15-50		100*		
15	0-15					
12		0-15	15-50		100*	
9				15-50		
6			0-15		15-50	100*
4				0-15		
3					0-15	15-50
2						0-15
NOMINAL PLACEMENT THICKNESS, INCHES	42	30	24	18	12	6

* MAXIMUM ALLOWABLE ROCK SIZE

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

NOTES

SEAL

SCALE

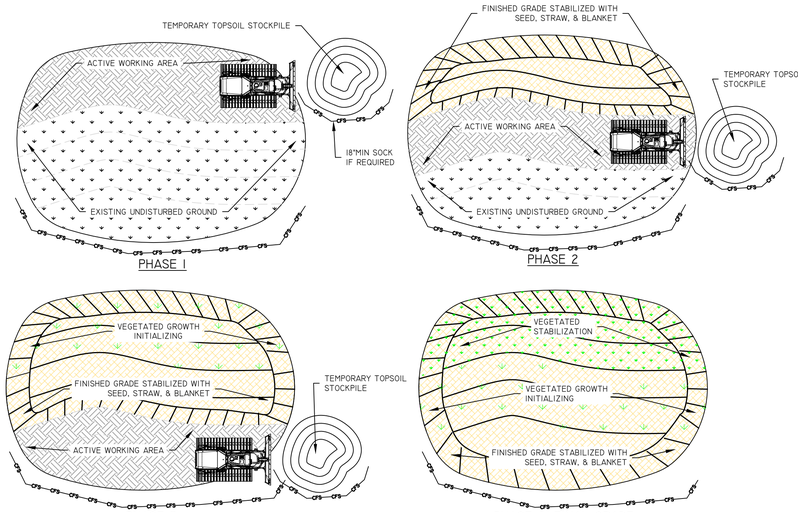
RESOURCE ENVIRONMENTAL SOLUTIONS
14 JUPITER LANE - SUITE 7
ALBANY, NY 12205
WWW.RES.US
TELEPHONE: (718) 873-4906
EMAIL: HGUMS@RES.US

FISH CREEK RESTORATION SITE
DESIGN PLAN

CONSTRUCTION DETAILS

DRAWN BY:	KH	NEW YORK	
CHECKED BY:	NH	OSWEGO COUNTY	TOWN OF SHROEPPEL
APPROVED BY:	HG	SHEET: C801	PROJECT NO: 113375
DATE:	NOVEMBER 10, 2025		COORDINATE SYSTEM: NY83-CF

R:\RES\4\PROJECTS\113375 - OAK ORCHARD WWT PRM\DESIGN\DWG\PLANSETS\FISH CREEK
113375_ALL_SHEETS.DWG
COORDINATE SYSTEM: NY83-CF



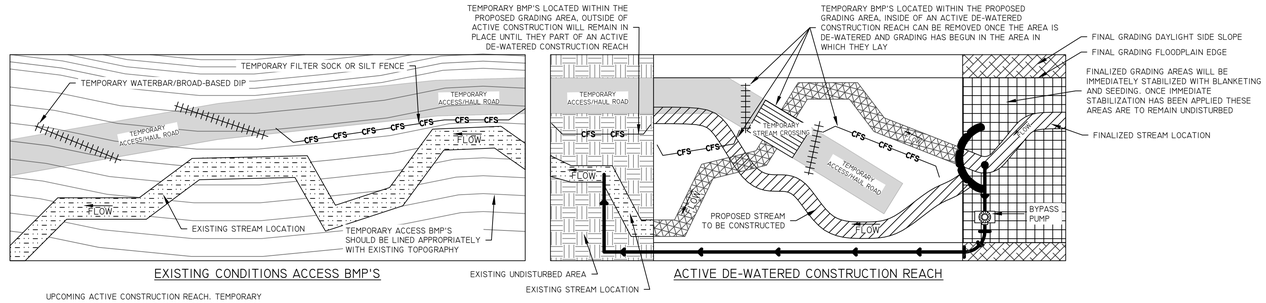
NOTES:

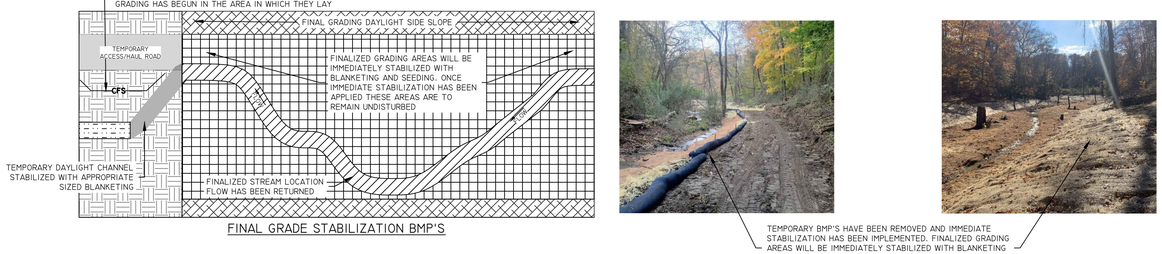
1. SOIL LIFTS TYPICALLY CONSIST OF LARGE AREAS THAT WILL HAVE 1-3FT OF SOIL ADDED ALONG THE SHAPE OF THE EXISTING TOPOGRAPHY.
2. TOPSOIL IS TO BE STRIPPED, TEMPORARILY STOCKPILED, AND REUSED.
3. LIFT SHOULD BE BUILT IN A WAY AS TO LEAVE AS MUCH EXISTING VEGETATION BELOW THE WORKING AREA AS POSSIBLE.
4. UNLESS OTHERWISE SPECIFIED IN THE APPROVED E&S PLANS ANY TEMPORARY TOPSOIL PILES SHALL HAVE A MIN OF 18" FILTER SOCK SURROUNDING THE PILE AND WILL BE STABILIZED WITH TEMPORARY SEED AND STRAW.
5. ANY TOPSOIL STRIPPED FOR THE LIFT SHALL RETURN TO THE IMPACTED AREA FOR THE LIFT UNLESS OTHERWISE SPECIFIED BY THE APPROVED E&S PLANS.
6. ONCE A STAGE OF AN INDIVIDUAL AN FIELD LIFT AREA REACHES FINAL GRADE, IMMEDIATE STABILIZATION WILL BE APPLIED AND THE FIELD LIFT PROCESS WILL MOVE TO THE NEXT STAGE. IMMEDIATE STABILIZATION WILL CONSIST OF STRAW, BLANKET, AND PERMANENT SEEDING.
7. STRAW MULCH SHOULD BE APPLIED AT RECOMMENDED RATES AND SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY TO PREVENT BEING WINDBLOWN. TEMPORARY OR IMMEDIATE STABILIZATION SEEDING IS TO BE APPLIED AT RECOMMENDED RATES.
8. ADDITIONAL COMPOST FILTER SOCK AND WATERBARS (OR BROAD BASED DIPS) CAN BE ADDED AS NEEDED TO AID WITH STABILIZATION.
9. FIELD LIFT IS TO BE SEEDED UNTIL AT LEAST 70% UNIFORM VEGETATIVE COVER.
10. ANY BMP'S SUCH AS SOCK OR FENCE SHALL REMAIN IN PLACE UNTIL 70% VEGETATIVE COVER.
11. LIFT'S LOCATED WITHIN AN AGRICULTURAL CROP FIELD THAT IS PLANNED TO REMAIN A CROP FILED MAY NOT NEED TO REACH 70% OF VEGETATIVE COVER AND SHOULD ONLY BE STRAWED NOT BLANKETED. SEE THE APPROVED E&S PLANS AND SEQUENCE.
12. FOR CROP FIELDS THE ONSITE CONTRACTOR SHALL ATTEMPT TO LIMIT THE AMOUNT OF ROCK AND WOODY MATERIAL IN THE TOP 12 INCHES OF THE PILE.

C-5
C802

FIELD LIFT CONSTRUCTION & E&S SEQUENCING

NOT TO SCALE





NOTES:

TEMPORARY BMP'S WILL BE MAINTAINED UNTIL THE RESTORATION PROJECT AND GRADING WORK HAS BEEN COMPLETED WITHIN THE SURROUNDING AREA. BELOW IS A LIST OF BMP'S WITH CONDITIONS IN WHICH THEY CAN AND CANNOT BE REMOVED. REFER TO THE APPROVED E&S PLAN FOR FINAL BMP PLACEMENT/REMOVAL PROCESSES:

- 1.1. COMPOST FILTER SOCK / FILTER FENCE
  - 1.1.1. CFS WILL NOT BE REMOVED UNTIL IT IS LOCATED WITHIN AN ACTIVE DE-WATERED CONSTRUCTION REACH AND THERE NO LONGER ANY THREAT OF SEDIMENT DISCHARGING FROM THE LOD.
  - 1.1.2. CFS SHOULD NOT BE REMOVED IF IT IS LOCATED ALONG A TEMPORARY HAUL ROAD LOCATED OUTSIDE OF THE PROPOSED GRADING AREA.
  - 1.1.3. CFS LOCATED UNDERNEATH PROPOSED PERMANENT STOCKPILES SHOULD NOT BE REMOVED.
- 1.2. WATERBAR/BROAD-BASED DIP
  - 1.2.1. WATERBARS OR DIPS WILL NOT BE REMOVED UNTIL THEY ARE LOCATED WITHIN AN ACTIVE DE-WATERED CONSTRUCTION REACH AND THERE NO LONGER ANY THREAT OF SEDIMENT DISCHARGING FROM THE LOD.
  - 1.2.2. WATERBARS OR DIPS SHOULD NOT BE REMOVED IF THEY ARE LOCATED ALONG A TEMPORARY HAUL ROAD LOCATED OUTSIDE OF THE PROPOSED GRADING AREA.
- 1.2. TEMPORARY STREAM/WETLAND CROSSING
  - 1.2.1. TEMPORARY CROSSINGS WILL NOT BE REMOVED UNTIL THEY ARE LOCATED WITHIN AN ACTIVE DE-WATERED CONSTRUCTION REACH AND THERE NO LONGER ANY THREAT OF SEDIMENT DISCHARGING FROM THE LOD.
  - 1.2.2. TEMPORARY CROSSINGS SHOULD NOT BE REMOVED IF IT IS LOCATED ALONG A TEMPORARY HAUL ROAD LOCATED OUTSIDE OF THE PROPOSED GRADING AREA.

ADDITIONAL NOTES:

1. ALL CHANGES ARE TO BE APPROVED BY THE DESIGN ENGINEER OR CONSTRUCTION MANAGER PRIOR TO REMOVAL ON-SITE. NO BMP'S SHOULD BE REMOVED WITHOUT THE APPROVAL OF THE ONSITE CONSTRUCTION MANAGER OR THE ENGINEER OF RECORD.
2. THE RESTORATION PROJECT WILL FUNCTION TO PREVENT AND REDUCE SEDIMENT WITHOUT CFS BMPs. SEDIMENT REDUCTION DUE TO STREAM RESTORATION IS LARGELY ATTRIBUTED TO THE STABILIZATION OF THE BED AND BANKS WITHIN THE CHANNEL. STREAM RESTORATION PROJECTS THAT RECONNECT THE STREAM CHANNEL TO ITS FLOODPLAIN OVER A RANGE OF STORM EVENTS PROMOTE SETTLING AND FILTERING PROCESSES THAT REMOVE SEDIMENTS AND NUTRIENTS.

C-6
C802

IMMEDIATE STABILIZATION
ADAPTED FOR FLOODPLAIN RESTORATION

NOT TO SCALE

REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND

NOTES

SEAL

SCALE

RESOURCE ENVIRONMENTAL SOLUTIONS
14 JUPITER LANE , SUITE 7
ALBANY, NY 12205
TELEPHONE: (718) 873-4906
WWW.RES.US
EMAIL: HGUMB@RES.US

FISH CREEK RESTORATION SITE
DESIGN PLAN

CONSTRUCTION DETAILS

DRAWN BY:	KH	NEW YORK	
CHECKED BY:	NH	OSWEGO COUNTY	TOWN OF SHROEPPEL
APPROVED BY:	HG	SHEET: C802	PROJECT NO: 13375
DATE:	NOVEMBER 10, 2025		COORDINATE SYSTEM: NY83-CF

R:\RES\CAD\Projects\13375 - Oak Orchard WWT Prm\Design\dwg\Plansets\Fish Creek Design Plans.dwg
LAST MODIFIED: 11/10/2025 10:45:45 AM
COORDINATE SYSTEM: NY83-CF

AREA: 564831.72(SQ.FT.)/12.97(ACRES)

STAATS, RAYMOND W.
290.00-02-55

PROPOSED STOCKPILE AREA

STAATS, RAYMOND W.
290.00-02-55
AREA: 1671153.51(SQ.FT.)/38.36(ACRES)

STAATS, RAYMOND W.
290.00-02-55

STAATS, RAYMOND W.
290.00-02-55

STAATS, RAYMOND W.
290.00-02-55

HOYT ROAD

PETER SCOTT ROAD

KLINE ROAD

SUTTON ROAD

FISH CREEK

370

365

375

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- SITE PROTECTION BOUNDARY
- EXISTING THALWEG
- EXISTING WETLANDS
- EXISTING STRUCTURES
- ROAD
- ACCESS PATH
- TREE LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED WETLAND SEEDING
- PROPOSED UPLAND SEEDING
- PROPOSED TEMPORARY STABILIZATION SEEDING
- PROPOSED WETLAND PLANTING
- UPLAND ENHANCEMENT PLANTING

NOTES

SEAL

SCALE

0 100 200 400 Feet

SCALE 1" = 100'

RESOURCE ENVIRONMENTAL SOLUTIONS
14 JUPITER LANE , SUITE 7
ALBANY, NY 12205
TELEPHONE: (718) 873-4906
WWW.RES.US
EMAIL: HGUMB@RES.US

FISH CREEK RESTORATION SITE
DESIGN PLAN

PROPOSED SITE RESTORATION PLAN

DRAWN BY:	KH	NEW YORK	
CHECKED BY:	NH	OSWEGO COUNTY	TOWN OF SCHROEPPEL
APPROVED BY:	HG	SHEET: C900	PROJECT NO: 13375
DATE:	NOVEMBER 11, 2025		COORDINATE SYSTEM: NY83-CF

R:\RESGAD\PROJECTS\13375 - OAK ORCHARD WWT PRM\DESIGN\DWG\PLANSETS\FISH CREEK RZ ANNEXES.DWG, 11/11/2025 8:52:45 AM, HGUMB

PLANTING LIST

ZONE	*SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS	NUMBER PER ACRE	TOTAL PLANTS (1.9 AC)
UPLAND ENHANCEMENT PLANTINGS	*Acer rubrum*	Red Maple	FAC	70	133
	Amelanchier arborea	Downy Service-Berry	FACU	75	143
	Liriodendron tulipifera	Tuliptree	FACU	82	156
	Populus grandidentata	Big-Tooth Aspen	FACU	82	156
	Prunus serotina	Black Cherry	FACU	82	156
	Quercus alba	Northern White Oak	FACU	82	156
	Quercus rubra	Northern Red Oak	FACU	82	156
	Viburnum dentatum	Southern Arrow-Wood	FAC	70	133
	Viburnum lentago	Nanny-Berry	FAC	75	143
			TOTAL	**700**	**1330**
ZONE	***SCIENTIFIC NAME***	**COMMON NAME**	**INDICATOR STATUS**	**NUMBER PER ACRE**	**TOTAL PLANTS (12.45 AC)**
WETLAND SHRUB PLANTINGS	*Acer negundo*	Ash-Leaf Maple	FAC	45	560
	Alnus incana	Speckled Alder	FACW	30	374
	Cephalanthus occidentalis	Common Buttonbush	OBL	53	660
	Cornus amomum	Silky Dogwood	FACW	53	660
	Cornus sericea	Red Osier Dogwood	FACW	53	660
	Lindera benzoin	Northern Spicebush	FACW	20	249
	Ilex verticillata	Common Winterberry	FACW	20	249
	Viburnum dentatum	Southern Arrow-Wood	FAC	26	324
			TOTAL	**300**	**3735**
ZONE	***SCIENTIFIC NAME***	**COMMON NAME**	**INDICATOR STATUS**	**NUMBER PER ACRE**	**TOTAL PLANTS (12.45 AC)**
WETLAND TREE PLANTINGS	*Acer rubrum*	Red Maple	FAC	28	349
	Acer saccharinum	Silver Maple	FACW	56	697
	Platanus occidentalis	American Sycamore	FACW	28	349
	Quercus bicolor	Swamp White Oak	FACW	126	1569
	Quercus palustris	Pin Oak	FACW	125	1556
	Salix nigra	Black Willow	OBL	27	336
	Betula Nigra	River Birch	FACW	55	685
	Ulmus rubra	Slippery Elm	FAC	55	685
			TOTAL	**500**	**6225**

Wetland Restoration Woody Plantings Notes:

1) Wetland Restoration shrub planting spacing is to be 7.4'x7.4'

2) Wetland Enhancement tree planting spacing is to be 8.5'x8.5'

3) Upland Enhancement tree planting spacing is to be 8.5'x8.5'

4) Species are to be randomly mixed throughout respective planting zones.

SEEDING LIST

ZONE	*SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS	MIX DENSITY	SEEDING RATE (61.75 LBS/12.45 AC)
NY WET MEADOW RESTORATION MIX 30/10	*Elymus virginicus*	Virginia Wild Rye	FACW	10.21%	6.30
	Andropogon gerardii	Big Bluestem	FACU	6.07%	3.75
	Panicum virgatum	Wand Panic Grass	FAC	4.25%	2.63
	Carex comosa	Bearded Sedge	OBL	1.52%	0.94
	Carex scoparia	Pointed Broom Sedge	FACW	4.25%	2.63
	Carex vulpinoidea	Common Fox Sedge	OBL	15.19%	9.38
	Scirpus atrovirens	Dark-Green Bulrush	OBL	6.99%	4.31
	Carex lurida	Shallow Sedge	OBL	0.61%	0.38
	Juncus effusus	Lamp Rush	OBL	10.12%	6.25
	Scirpus cyperinus	Cottongrass Bulrush	OBL	8.61%	5.31
	Asclepias incarnata	Swamp Milkweed	OBL	0.49%	0.30
	Doellingeria umbellata	Parasol White-Top	FACW	3.39%	2.09
	Eupatorium perfoliatum	Common Boneset	FACW	4.05%	2.50
	Eutrochium maculatum	Spotted Trumpetweed	OBL	3.61%	2.23
	Heliopsis helianthoides	Smooth Oxeye	FACU	0.16%	0.10
	Lobelia siphilitica	Great Blue Lobelia	FACW	5.06%	3.13
	Lythrum alatum	Wing-Angle Loosestrife	OBL	7.59%	4.69
	Rudbeckia hirta	Black-Eyed-Susan	FACU	4.66%	2.88
	Symphyotrichum prenanthoides	Crooked-Stem American-Aster	FAC	3.04%	1.88
	Zizia aurea	Golden Alexanders	FAC	0.14%	0.09
			TOTAL	**100%**	**61.75**

SEEDING LIST, CONT.

ZONE	*SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS	MIX DENSITY	SEEDING RATE (12 LBS/1.9 AC)
NY UPLAND MEADOW RESTORATION MIX 20/20	*Andropogon gerardii*	Big Bluestem	FACU	9.89%	1.19
	Carex brevior	Short-Beak Sedge	FAC	1.59%	0.19
	Elymus canadensis	Nodding Wild Rye	FACU	6.28%	0.75
	Panicum virgatum	Wand Panic Grass	FAC	4.61%	0.55
	Schizachyrium scoparium	Little False Bluestem	FACU	13.18%	1.58
	Sorghastrum nutans	Yellow Indian Grass	FACU	13.18%	1.58
	Allium cernuum	Nodding Onion	FACU	0.30%	0.04
	Asclepias syriaca	Common Milkweed	UPL	0.05%	0.01
	Chamaecrista fasciculata	Sleepingplant	FACU	0.30%	0.04
	Coreopsis lanceolata	Lance-Leaf Tickseed	FACU	0.88%	0.11
	Coreopsis tinctoria	Golden Tickseed	FACU	0.88%	0.11
	Dalea purpurea	Purple Prairie Clover	-	1.98%	0.24
	Desmodium canadense	Showy Tick-Trefoil	FAC	0.15%	0.02
	Echinacea purpurea	Purple Coneflower	-	0.72%	0.09
	Liatris pycnostachya	Cat-Tail Gayfeather	FAC	0.30%	0.04
	Lupinus perennis	Wild Lupine	-	0.03%	0.00
	Monarda fistulosa	Oswego-Tea	FACU	3.84%	0.46
	Penstemon digitalis	Foxglove Beardtongue	FAC	4.64%	0.56
	Potentilla arguta	Prairie Cinquefoil	-	3.79%	0.45
	Pycnanthemum tenuifolium	Narrow-Leaf Mountain-Mint	FAC	4.15%	0.50
	Ratibida pinnata	Yellow or Grey Headed Coneflower	-	1.65%	0.20
	Rudbeckia hirta	Black-Eyed-Susan	FACU	10.11%	1.21
	Solidago juncea	Early Goldenrod	OBL	4.67%	0.56
	Solidago nemoralis	Gray Goldenrod	FACU	4.12%	0.49
	Symphyotrichum laeve	Smooth Blue American-Aster	FACU	1.21%	0.14
	Symphyotrichum novae-angliae	New England American-Aster	FACW	1.45%	0.17
	Verbena stricta	Hoary Vervain	-	1.54%	0.18
	Veronicastrum virginicum	Culver's-Root	FAC	4.39%	0.53
	Zizia aurea	Golden Alexanders	FAC	0.12%	0.01
			TOTAL	**100%**	**11.99**
ZONE	***SCIENTIFIC NAME***	**COMMON NAME**	**INDICATOR STATUS**	**MIX DENSITY**	**SEEDING RATE (530.1 LBS/17.67 AC)**
***TEMPORARY NURSE CROP STABILIZATION & ACCELERATED STABILIZATION COVER CROP SEEDING**	*Lolium multiflorum*	Annual Rye Grass	FACU	100.00%	530.10
			TOTAL	**100%**	**530.10**
ZONE	***SCIENTIFIC NAME***	**COMMON NAME**	**INDICATOR STATUS**	**MIX DENSITY**	**SEEDING RATE (1,767 LBS/17.67 AC)**
***TEMPORARY NURSE CROP STABILIZATION & ACCELERATED STABILIZATION COVER CROP SEEDING - WINTER**	*Secale cereale L.*	Cereal Rye	-	100.00%	1,767.00
			TOTAL	**100%**	**1,767.00**

* TEMPORARY NURSE CROP STABILIZATION SEEDING WILL BE USED IN CONJUNCTION WITH ALL OTHER ACCELERATED SEED MIXES

NOTES: 1. TEMPORARY NURSE CROP STABILIZATION SEEDING AND ACCELERATED STABILIZATION COVER CROP SEEDINGWERE CHOSEN USING THE NY DEC E&S MANUAL'S GUIDANCE ON PAGE 4.58 STANDARD AND SPECIFICATIONS FOR TEMPORARY CONSTRUCTION AREA SEEDING

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

NOTES

SEAL

SCALE

RESOURCE ENVIRONMENTAL SOLUTIONS
14 JUPITER LANE , SUITE 7
ALBANY, NY 12205
WWW.RES.US
TELEPHONE: (718) 873-4906
EMAIL: HGUMB@RES.US

FISH CREEK RESTORATION SITE
DESIGN PLAN

PLANTING LIST

DRAWN BY:	KH	NEW YORK	
CHECKED BY:	NH	OSWEGO COUNTY	TOWN OF SCHROEPPEL
APPROVED BY:	HG	SHEET: C901	PROJECT NO: 113375
DATE:	NOVEMBER 11, 2025		COORDINATE SYSTEM: NY83-CF

R:\RESCAD\PROJECTS\113375 - OAK ORCHARD WWT PRM\DESIGN\DWG\PLANSETS\FISH CREEK RESTORATION\PLANTING LIST.DWG
COORDINATE SYSTEM: NY83-CF

PLANTING DETAIL NOTES:

A. GENERAL:

1. PLANT DETAILS ARE INCORPORATED INTO THIS SPECIFICATION BY REFERENCE.

2. QUALITY ASSURANCE
2.1. SUPPLIER CERTIFICATION: THE SUPPLIER OF ALL SEEDS AND/OR VEGETATION SHALL CERTIFY THAT ORIGIN OF THE SEEDS FROM WHICH THE PLANTS OR SEEDS WERE PRODUCED IS FROM THE EASTERN OR CENTRAL PORTIONS OF THE U.S. PRIOR TO PLANTING.
2.2. INSTALLER QUALIFICATIONS: ENGAGE AN EXPERIENCED INSTALLER, WHO HAS SUCCESSFULLY COMPLETED RESTORATION PLANTING PROJECTS SIMILAR IN SIZE AND COMPLEXITY TO THIS PROJECT.
2.3. INSTALLER'S FIELD SUPERVISION: INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON THE PROJECT SITE WHEN PLANTING IS IN PROGRESS.

3. PLANT MATERIALS
3.1. PROVIDE PLANT MATERIALS OF QUANTITY, SIZE, GENUS AND SPECIES INDICATED ON THE CONSTRUCTION DRAWINGS.

4. ALL PLANT MATERIALS AND WORK SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 2014 AMERICAN STANDARD FOR NURSERY STOCK. ALL SEEDS MUST MEET APPLICABLE STATE AND FEDERAL REGULATIONS AND MUST INCLUDE LABELING INDICATING SUPPLIER, FORMULATION, GERMINATION RATES AND SEED DATE. LABELS FROM ALL SEED INSTALLED ARE TO BE KEPT AND SUPPLIED TO OWNER AT COMPLETION OF PROJECT.

DO NOT MAKE SUBSTITUTIONS UNLESS APPROVED BY THE PROJECT MANAGER. REQUESTS FOR SUBSTITUTIONS MUST BE MADE IN WRITING TO THE PROJECT MANAGER AND APPROVED PRIOR TO INSTALLATION. INCLUDE REASONS WHY THE SUBSTITUTIONS ATE BEING REQUESTED.

5. PROJECT ENGINEER MAY INSPECT PLANT MATERIALS EITHER AT PLACE OF GROWTH OR ON SITE DURING PLANTING ACTIVITIES, FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. MATERIAL FOUND TO BE UNACCEPTABLE WILL BE REJECTED AND THE CONTRACTOR WILL BE REQUIRED TO SUPPLY REPLACEMENT MATERIAL WITHIN TIME FRAME (I.E., 1 WEEK). REJECTED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM PROJECT SITE. UNACCEPTABLE MATERIAL IS DEFINED AS THE FOLLOWING:
5.1. PLANTS WITH BENT TRUNKS OR MULTIPLE LEADERS, UNLESS CHARACTERISTIC FOR THE SPECIES;
5.2. PLANTS WITH DISEASED TRUNKS, STEMS, OR LEAVES;
5.3. PLANTS WITH PEST-INFESTED TRUNKS, STEMS, OR LEAVES;
5.4. PLANTS OF INSUFFICIENT SIZE;
5.5. PLANTS WITH WRONG SPECIES/SUB-SPECIES; AND
5.6. PLANTS HAVING ROOT GIRDLING IN THE CONTAINER.

6. DELIVERY, STORAGE, AND HANDLING
6.1. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY THEIR NATURAL SHAPE. PROVIDE PROTECTIVE COVERING OF PLANTS DURING DELIVERY. DO NOT DROP PLANTS DURING DELIVERY.
6.2. DELIVER PLANT MATERIALS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, KEEP PLANTINGS STORED IN THEIR SHIPPING CONTAINER IN SUITABLE CONDITIONS.
6.3. DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS UNTIL PLANTING TIME.
6.4. SEED: SEED SHOULD BE CLEAN AND DRY. DO NOT USE SEED THAT HAS BECOME MOIST DURING DELIVERY OR STORAGE. IF SEED NEEDS TO BE TEMPORALLY STORED IT SHOULD BE STORED IN A COOL, DRY PLACE.

7. PROJECT CONDITIONS
7.1. EXAMINE THE SUB-GRADE AND TOPSOIL, AND VERIFY THE ELEVATIONS PRIOR TO INSTALLING PLANT OR SEED MATERIAL. ALL SOIL AMENDMENTS AND CONDITIONING SHALL BE COMPLETED PRIOR TO SEEDING AND PLANT MATERIAL INSTALLATION. DO NOT PROCEED WITH THE WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN A MANNER ACCEPTABLE TO THE INSTALLER.
7.2. CALL NEW YORK ONE CALL SYSTEM AT 1-800-962-7962, 72 HOURS PRIOR TO ANY EXCAVATION. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE AS REQUIRED.

8. PLANTING AND SEEDING RESTRICTIONS
8.1. PLANTS SHALL BE PLANTED DURING UNFROZEN SOIL CONDITIONS SEPTEMBER 15TH - MAY 15TH. PLANT INSTALLATION OUTSIDE OF THIS TIME PERIOD SHALL NOT OCCUR UNLESS APPROVED BY THE PROJECT CONSTRUCTION MANAGER AND MAY REQUIRE ADDITIONS TO THE SCOPE OF WORK, SUCH AS WATERING REGIMES, AND ADDITIONAL PLANT QUANTITIES.
8.2. SEEDING SHALL BE COMPLETED DURING SEPTEMBER 15-MAY 15 TO THE GREATEST EXTENT POSSIBLE. DORMANT WINTER SEEDING SHALL NOT BE CONDUCTED WITH MORE THAN 2" OF SNOW ON THE GROUND AT THE TIME OF SEEDING. DUE TO THE SCHEDULE OF THE PROJECT, SOME PERMANENT SEEDING OUTSIDE THIS TIME PERIOD WILL BE NECESSARY. THE CONTRACTOR WILL BE RESPONSIBLE FOR REMEDIAL SEEDING IN UNDER-PERFORMING AREAS DUE TO SEEDING OUTSIDE OF THIS TIME PERIOD. A COVER CROP SHALL BE SOWN AT THE TIME OF PERMANENT SEEDING TO PROVIDE QUICKER GERMINATION AND STABILIZATION PER THE PLAN SHEETS.
8.3. THESE LIMITS MAY NOT BE MODIFIED UNLESS APPROVED BY THE PROJECT ENGINEER IN ADVANCE, WITH THE RISK OF SURVIVAL BORNE SOLELY BY THE CONTRACTOR.

B. EXECUTION:

INSTALL PLANT MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS OF THE CONSTRUCTION DRAWINGS FOLLOWING THE ADDITION OF SOIL AMENDMENTS, SEEDING, AND INSTALLATION OF APPLICABLE EROSION CONTROL FABRIC.

1. CONTAINER-GROWN AND BAREROOT MATERIAL
1.1. PLANTING OF CONTAINER GROWN MATERIAL SHALL OCCUR IN ACCORDANCE WITH LOCATIONS AND/OR PATTERNS SPECIFIC TO THE CONSTRUCTION DRAWINGS.
1.2. PLANTING HOLES SHALL BE AT LEAST TWICE THE DIAMETER AND DUG TO THE SAME DEPTH AS THE PLANT'S ROOT MASS. IF THE PLANT IS CONTAINER-GROWN, DO NOT REMOVE PLANT MATERIAL FROM CONTAINER UNTIL IMMEDIATELY BEFORE INSTALLATION. EXAMINE THE ROOTS TO SEE IF THEY ARE POT BOUND. CAREFULLY SEPARATE ANY POT BOUND OR CRAMPED ROOTS AND SPREAD THEM OUT WHEN PLACING THE PLANT WITHIN THE HOLE SO THAT THE ROOTS CAN GROW WITHOUT FURTHER CONSTRICTION OF THE ROOT BALL.
1.3. SET PLANT MATERIALS PLUMB AND CENTERED WITHIN HOLE, ENSURING THAT THE TOP OF THE ROOT BALL IS SLIGHTLY ELEVATED ABOVE THE SURROUNDING SOIL ELEVATIONS. BACKFILL AROUND ROOT BALL WITH SUITABLE NATIVE SOIL, MAINTAINING PLUMB, AND GENTLY TAMPING BACKFILL LAYERS TO ELIMINATE VOIDS.
1.4. FOLLOWING THE BACKFILLING, ADD EXISTING SOIL TO BRING THE FINAL GRADE IN THE PLANTING HOLE TO THE SURROUNDING SOIL SURFACE. RAKE THE UNUSED EXISTING SOIL OUTSIDE THE PLANTING HOUSE, TAKING CARE NOT TO MOUND THE SOIL OR TO SIGNIFICANTLY ALTER THE EXISTING GRADES.

2. LIVE STAKE MATERIAL
2.1. LIVE STAKE MATERIAL SHALL BE KEPT MOIST ACCORDING TO MANUFACTURES RECOMMENDATIONS. DO NOT ALLOW THE LIVE STAKES TO DRY OUT PRIOR TO INSTALLATION.
2.2. MATERIAL SHALL BE PLANTED ACCORDING TO THE DETAIL PROVIDED. THE USE OF A PUNCH/PLANTING BAR, AUGER, REBAR, OR WATER-JET MAY BE USED TO PRE-DRILL HOLE IF NECESSARY. TAMP SOIL AROUND STAKE FOLLOWING INSTALL.

3. SEEDING
3.1. SEEDING SHALL OCCUR AS SHOWN ON THE PLANTING PLAN. IN ACCORDANCE WITH THE CURRENT VERSION OF THE NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL SEED SHALL BE APPLIED PRIOR TO INSTALLATION OF ANY EROSION CONTROL FABRIC. AREAS APPLIED WITH HERBICIDE MAY BE SEEDED 7 DAYS AFTER APPLICATION.
3.2. SOW SEED WITH A SPREADER OR A HYDROSEED MACHINE WITH MANUFACTURER RECOMMENDED BINDING AGENT. IN AREAS WITH DENSE EXISTING VEGETATION, INSTALL SEED WITH A NATIVE NO-TILL DRILL SEEDER. DO NOT BROADCAST DROP SEED WHEN WIND VELOCITY EXCEEDS 5 MPH. EVENLY DISTRIBUTE SEED BY SOWING EQUAL QUANTITIES IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER.
3.3. DO NOT USE WET SEED OR SEED THAT IS MOLDY OR OTHERWISE DAMAGED IN TRANSIT OR STORAGE.
3.4. SOW SEED PRIOR TO INSTALLATION OF EROSION CONTROL FABRIC WHERE APPLICABLE.
3.5. PROTECT SEEDED AREAS AGAINST EROSION BY SPREADING STRAW MULCH IMMEDIATELY FOLLOWING COMPLETION OF SEEING OPERATIONS IF OTHER EROSION CONTROL MEASURES ARE NOT OTHERWISE SPECIFIED. SPREAD UNIFORMLY AT A RATE OF 2 TONS PER ACRE (90 LB. PER1,000 S.F.) TO FORM A CONTINUOUS BLANKET OVER SEEDED AREAS. SPREAD BY HAND, BLOWER, OR OTHER SUITABLE EQUIPMENT. ANCHOR STRAW MULCH BY CRIMPING INTO TOPSOIL BY SUITABLE MECHANICAL EQUIPMENT.
3.6 STRAW EROSION CONTROL BLANKET IS A SUITABLE ALTERNATIVE TO BE USED INSTEAD OF BLOWN OR CRIMPED STRAW.

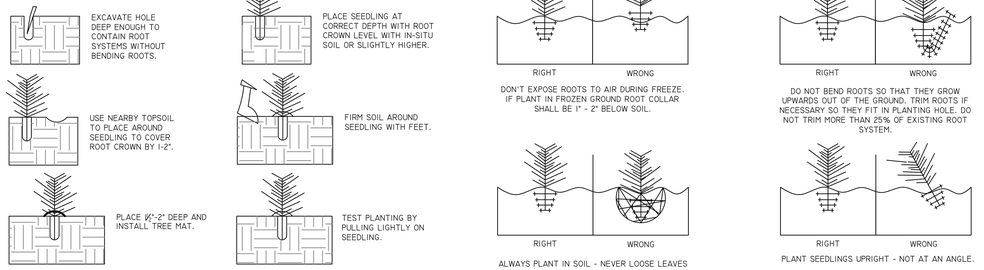
4. LOCATION
4.1. ALL PLANT MATERIAL IS TO BE INSTALLED AS SHOWN IN THE PLANTING DETAIL IN A GRIDDED PATTERN. GRID SPACING IS DETERMINED BY THE NUMBER OF PLANTS PER ACRE.
4.2. ALL LIVE STAKES ARE TO BE INSTALLED ALONG STREAM BANKS, POOLS, AND FLOODPLAIN POOLS BASED UPON SPACING INDICATED IN THE PLANTING PLAN SPECIES LIST.

CARE OF SEEDLING UNTIL PLANTED

SEEDLINGS SHOULD BE PLANTED IMMEDIATELY. IF IT IS NECESSARY TO STORE MOSS-PACKED SEEDLINGS FOR MORE THAN 2 WEEKS, ONE PINT OF WATER PER PKG. SHOULD BE ADDED. IF CLAY-TREATED, DO NOT ADD WATER TO PKG. PACKAGES MUST BE SEPARATED TO PROVIDE VENTILATION TO PREVENT "HEATING". SEPARATING PACKAGES WITH WOOD STRIPS AND STORE OUT OF THE WIND IN A SHADED, COOL, (NOT FREEZING) LOCATION.

CARE OF SEEDLING DURING PLANTING

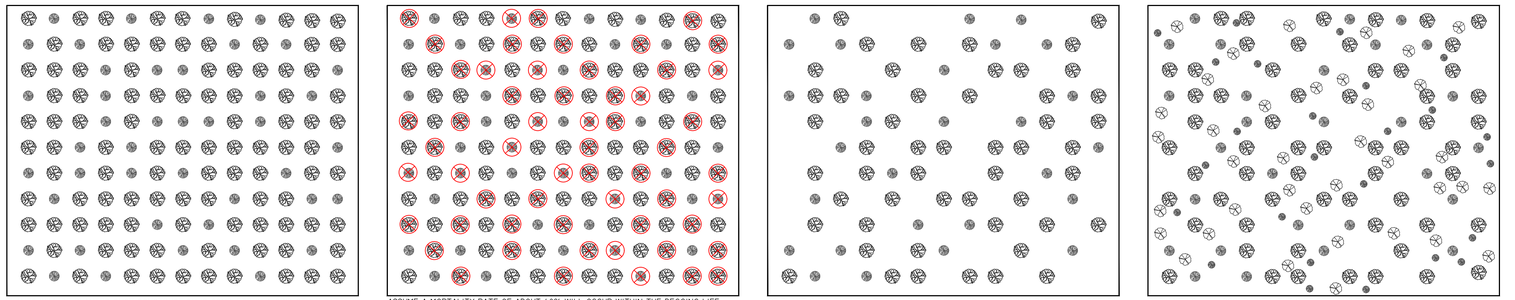
WHEN PLANTING, ROOTS MUST BE KEPT MOIST UNTIL TREES ARE IN THE GROUND. DO NOT CARRY SEEDLINGS IN YOUR HAND EXPOSED TO THE AIR AND SUN. KEEP MOSS-PACKED SEEDLINGS IN A CONTAINER PACKED WITH WET MOSS OR FILLED WITH THICK MUDDY WATER. COVER CLAY-TREATED SEEDLINGS WITH WET BURLAP ONLY.



PL-1
C902

CONTAINER & TUBELING PLANTING DETAIL

NOT TO SCALE



PLANTS WILL BE PLANTED ONCE CONSTRUCTION IS COMPLETE IN A GRID STYLE PATTERN. PLANTING LOCATIONS ARE APPROXIMATE, THE ACTUAL LOCATION OF PLANTS ON THE SITE WILL BE SUBJECT TO SITE CONDITIONS AT THE TIME OF PLANTING.

ASSUME A MORTALITY RATE OF ABOUT 40% WILL OCCUR WITHIN THE BEGGING LIFE CYCLE OF THE SITE, CAUSING THE GRID PATTERN TO DISSIPATE. ACTUAL MORTALITY TO BE VERIFIED DURING MONITORING.

RE-PLANT SUPPLEMENTAL TREE AND SHRUB SPECIES IN A RANDOM PATTERN TO RETURN THE SITE TO THE REQUIRED DENSITIES PER ACRE.

REPLANTING WILL OCCUR UNTIL THE SITE RETURNS TO THE REQUIRED DENSITIES PER ACRE AND THE SITE HAS BEEN CLOSED OUT

PL-2
C902

MATRIX PLANTING PLAN DETAIL

NOT TO SCALE

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

TUBELING
SHRUB
REPLANTED TUBELING
REPLANTED SHRUB

NOTES

SEAL

SCALE

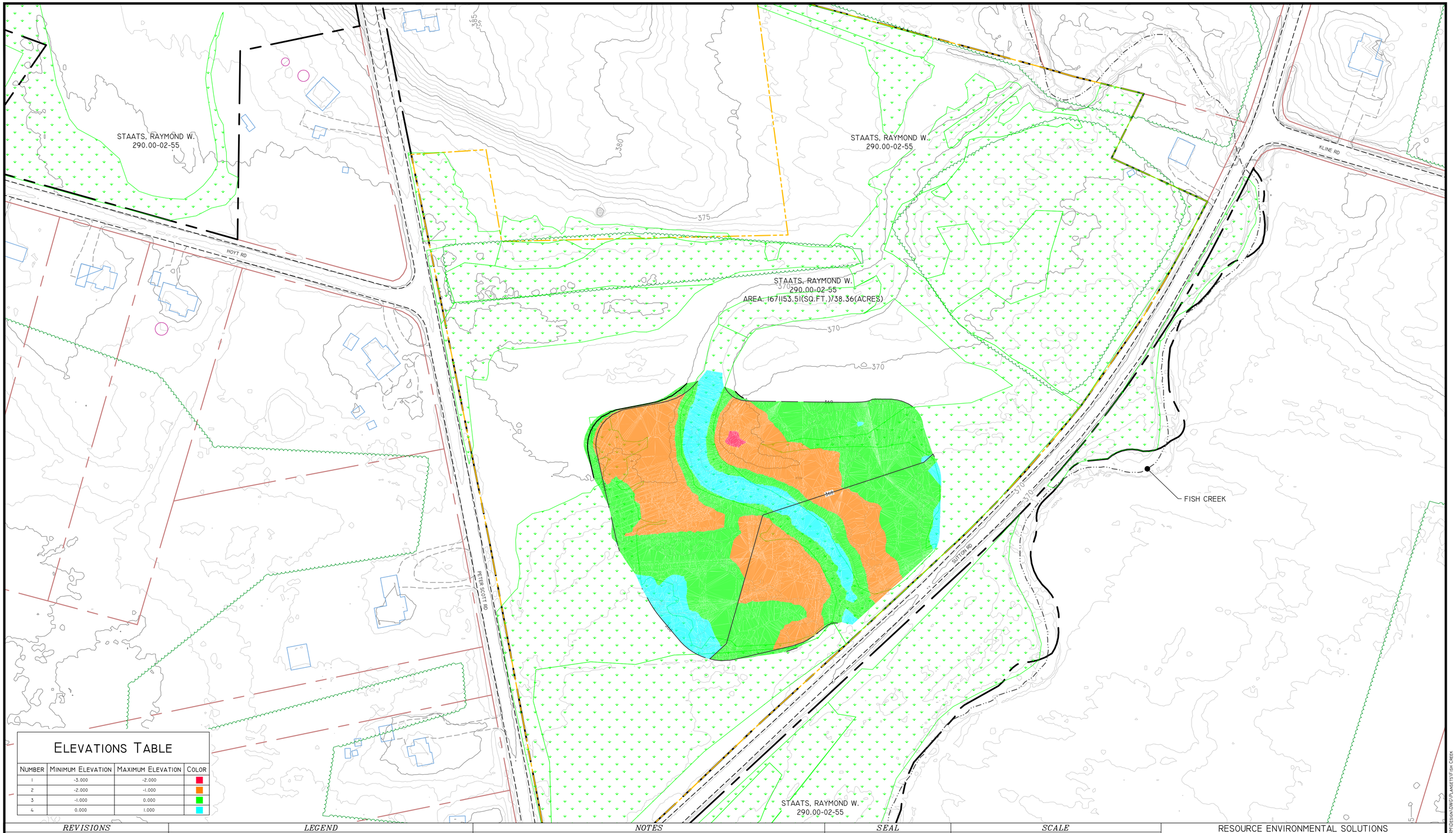
RESOURCE ENVIRONMENTAL SOLUTIONS
14 JUPITER LANE , SUITE 7
ALBANY, NY 12205
WWW.RES.US
TELEPHONE: (718) 873-4906
EMAIL: HGUMB@RES.US

FISH CREEK RESTORATION SITE
DESIGN PLANS

PLANTING DETAILS

DRAWN BY:	WP	PENNSYLVANIA	
CHECKED BY:	NH	OSWEGO COUNTY	TOWN OF SCHROEPPEL
APPROVED BY:	HG	SHEET: C902	PROJECT NO: PROJ#
DATE:	NOVEMBER 11, 2025		COORDINATE SYSTEM: NY83-CF

R:\RES\4\PROJECTS\15375 - OAK ORCHARD WWT PRM\DESIGN\DWG\PLANSETS\FISH CREEK RIZ ANNOWEE\15375 - FISH CREEK RIZ ANNOWEE.DWG
COORDINATE SYSTEM: NY83-CF



Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	-3.000	-2.000	
2	-2.000	-1.000	
3	-1.000	0.000	
4	0.000	1.000	

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- SITE PROTECTION BOUNDARY
- EXISTING THALWEG
- EXISTING WETLANDS
- EXISTING STRUCTURES
- ROAD
- ACCESS PATH
- TREE LINE
- OPEN WATER
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR

NOTES

SEAL

SCALE

0 80 160 320 Feet

SCALE 1" = 80'

RESOURCE ENVIRONMENTAL SOLUTIONS
14 JUPITER LANE , SUITE 7
ALBANY, NY 12205
WWW.RES.US
TELEPHONE: (718) 873-4906
EMAIL: HGUMB@RES.US

res

FISH CREEK RESTORATION SITE
DESIGN PLAN

EARTHWORK CUT/FILL VOLUMES

DRAWN BY:	KH	NEW YORK	
CHECKED BY:	NH	OSWEGO COUNTY	TOWN OF SHROEPPEL
APPROVED BY:	HG	SHEET: V100	PROJECT NO: 113375
DATE:	NOVEMBER 10, 2025		COORDINATE SYSTEM: NY83-CF

R:\RESCAD\PROJECTS\113375 - OAK ORCHARD WWT PRM\DESIGN\DWG\PLANSETS\FISH CREEK
11:19 AM NOVEMBER 25
COORDINATE SYSTEM: NY83-CF

APPENDIX E
REPRESENTATIVE SITE PHOTOS

DP-001 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-002 UPL

Photo 1: (UPL) facing North.

Photo 2: (UPL) facing East.

Photo 3: (UPL) facing West.

Photo 4: (UPL) facing South.

Photo 5: Soil profile.

DP-003 PFO

Photo 1: (PFO) facing North.

Photo 2: (PFO) facing East.

Photo 3: (PFO) facing West.

Photo 4: (PFO) facing South.

Photo 5: Soil profile.

DP-004 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-005 UPL

Photo 1: (UPL) facing North.

Photo 2: (UPL) facing East.

Photo 3: (UPL) facing West.

Photo 4: (UPL) facing South.

Photo 5: Soil profile.

DP-006 PSS

Photo 1: (PSS) facing North.

Photo 2: (PSS) facing East.

Photo 3: (PSS) facing West.

Photo 4: (PSS) facing South.

Photo 5: Soil profile.

DP-007 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-008 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-009 PSS

Photo 1: (PSS) facing North.

Photo 2: (PSS) facing East.

Photo 3: (PSS) facing West.

Photo 4: (PSS) facing South.

Photo 5: Soil profile.

DP-010 UPL

Photo 1: (UPL) facing North.

Photo 2: (UPL) facing East.

Photo 5: Soil profile.

Photo 3: (UPL) facing West.

Photo 4: (UPL) facing South.

DP-011 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-012 UPL

Photo 1: (UPL) facing North.

Photo 2: (UPL) facing East.

Photo 3: (UPL) facing West.

Photo 4: (UPL) facing South.

Photo 5: Soil profile.

DP-013 PFO

Photo 1: (PFO) facing North.

Photo 2: (PFO) facing East.

Photo 3: (PFO) facing West.

Photo 4: (PFO) facing South.

Photo 5: Soil profile.

DP-014 PSS

Photo 1: (PSS) facing North.

Photo 2: (PSS) facing East.

Photo 3: (PSS) facing West.

Photo 4: (PSS) facing South.

Photo 5: Soil profile.

DP-015 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-016 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-017 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-018 UPL

Photo 1: (UPL) facing North.

Photo 2: (UPL) facing East.

Photo 3: (UPL) facing West.

Photo 4: (UPL) facing South.

Photo 5: Soil profile.

APPENDIX F
PRELIMINARY JURISDICTIONAL DETERMINATION REPORT

Wetland Delineation and Waterbody Identification Report

HGS, LLC

Fish Creek Restoration Site

Town of Pennellville, Oswego County, New York

November 2025

Prepared by:
HGS, LLC a wholly owned subsidiary of
Resource Environmental Solutions, LLC
14 Jupiter Lane, Suite 7,
Colonie, New York 12205

Table of Contents

1.0 INTRODUCTION 1

2.0 METHODS 1

3.0 RESULTS 1

4.0 CONCLUSIONS 3

5.0 REFERENCES 5

Tables

Table 1 Wetlands Identified Within the Study Area
Table 2 Waterbodies Identified Within the Study Area

Appendix A Figures

Figure 1 Project Location Map
Figures 2a-2d Historical Imagery
Figure 3a-b Existing Conditions Map
Figure 4 Soil Survey Map
Figure 5 FEMA Flood Hazards
Figure 6 Delineated Aquatic Resources

Appendix B USACE Data Forms

Appendix C USACE Photolog

Appendix D Stream Data Forms and Photographs

Appendix E Descriptions of Soils Found Within the Study Area

Appendix F Résumés of Personnel Conducting Delineations

1.0 INTRODUCTION

HGS, LLC (HGS), a fully owned subsidiary of and hereafter referred to as Resource Environmental Solutions, LLC (RES) conducted environmental field surveys in November 2025 for the Fish Creek Restoration Site (Study Area), located in the Town of Pennellville, Oswego County, New York (NY). The Study Area is shown in Appendix A- Figure 1: Project Area Map. The purpose of the environmental field survey was to delineate and identify wetlands and streams within the Study Area.

The following sections of this report describe the methods used to identify and delineate wetlands and streams, the results of the field survey, and the associated documentation of any streams and wetlands identified within the Study Area.

2.0 METHODS

The identification of wetland boundaries was based on the methodology described in the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987). Determination of wetland boundaries were also guided by the methodologies presented in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0 (USACE 2012) and the New York State Freshwater Wetland Delineation Manual (NYSDEC 1995). Attention was given to the identification of potential hydrologic connections between wetlands and areas that could influence their jurisdictional status.

The Regional Supplement lists the following primary indicators of wetland hydrology: (A1) surface water, (A2) high water table, (A3) saturation, (B1) water marks, (B2) sediment deposits, (B3) drift deposits, (algal mat or crust, (B5) water-stained leaves, (B7) inundation visible on aerial imagery, (B8) sparsely vegetated concave surface, (B9) water-stained leaves, (B13) aquatic fauna, (B15) marl deposits, (C1) hydrogen sulfide odor, (C3) oxidized rhizospheres on living roots, (C4) presence of reduced iron, (C6) recent iron deduction in tilled soils, and (C7) thick muck surface. Per the Regional Supplement, the presence of any of these "primary" indicators is sufficient evidence that wetland hydrology is present. In addition , the Regional Supplement identifies the following secondary indicators which were also used to determine wetland hydrology: (B6) surface soil cracks, (B10) drainage patterns, (B16) moss trim lines, (C2) dry-season water table, (C8) crayfish burrows, (C9) saturation visible on aerial imagery, (D1) stunted or stressed plants, (D2) geomorphic position, (D3) shallow aquitard, (D4) microtographic relief, and (D5) FAC-neutral test. In accordance with the Regional Supplement, in the absence of a primary indicator, the presence of any two "secondary" indicators were considered a suitable indication of wetland hydrology.

Assessment of vegetation focused on the identification of dominant plant species in four categories: trees (>3" diameter at breast height (DBH), >20' tall), saplings (<3" DBH, <20' tall)/shrubs (<3" DBH and >3.28' tall), herbs, and woody vines. Dominance within each stratum was measured by visually estimating those species having the largest relative basal area (trees), greatest height (trees/shrubs), greatest number of stems (woody vines), and greatest percentage of aerial coverage (herbaceous) by species. Classification of the vegetative indicator status is based on the National Wetland Plant List: 2020 Wetland Ratings, (USACE 2020).

Hydric soils are those that are poorly drained and are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part of the soil layer. The presence of hydric soils is indicative of the presence of wetlands (Environmental Laboratory 1987). Hydric soil conditions were determined in the field through observation of composition, color, and morphology. Soil colors were determined using Munsell Soil Charts (Munsell Color 2009). Information concerning soil series, color, texture, and matrix and mottle color was recorded for each delineated wetland and used to determine whether the soils displayed hydric characteristics.

Data regarding wetland hydrology, vegetation, and soils was collected at representative sampling points throughout the Study Area and recorded on the Army Corps of Engineers: Wetland Determination Form – Northcentral and Northeast Region – Version 2.0 (Appendix C).

As regulated by Section 404 of the CWA, and Section 10 of the Rivers and Harbors Act of 1899, streams were classified as perennial, intermittent, or ephemeral based upon presence of flow, estimated duration

of flow, stream bed characteristics, and presence of aquatic biota. The USACE Jurisdictional Determination Form Instructional Guidebook (USACE 2007) was used to determine stream classification and flow status. Stream boundaries were determined based on the presence of ordinary high water mark characteristics, including a "clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris" (33 CFR § 328.3). Stream boundaries were defined and mapped in the field and data regarding geomorphic characteristics, channel geometry, water depth, bed substrate, and flow regime (perennial, intermittent, ephemeral) were collected and recorded on stream data forms (Appendix E).

The growing season in the Study Area is generally between May and October (USDA-NRCS-NWCC, 2002). Field observations were supplemented with a review of United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping, United States Department of Agriculture, Natural Resource Conservation Service (USDA-NRCS) soils mapping, and local landscape topography/morphology to provide a determination of wetlands present within the Study Area. Professional judgment was used to determine whether hydrophytic vegetation and hydric soils existed within the identified wetlands. It is understood that USACE and state agencies have the final say in acceptance of this delineation.

Each wetland and waterbody feature identified within the Study Area was given a unique map designation. The locations of wetland boundaries, stream channels, and sampling points were recorded using a Juniper Systems "Geode" (GPS) mapping grade unit with the capability of sub-meter accuracy (Figure 6: Delineated Aquatic Resources).

3.0 RESULTS

The Study Area is approximately 52.81 acres and consists of a stream-wetland floodplain complex with low topographic relief. Land use within and surrounding the Study Area includes agricultural land, forest, and rural residential lots (Figure 1).

A review of available United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI 2011) digital data indicated that one (1) NWI wetlands is located within the Study Area. An examination of United States Geological Society (USGS) mapping for the Study Area indicated one (1) blue-line stream is located within the Study Area. The NYSDEC Environmental Resource Mapper indicates there is one Class C stream (Fish Creek -Class C(C)) within the Study Area, as well as the presence of freshwater wetlands mapped using the Informational Freshwater Wetland Mapping layer within the Study Area.

A review of the *Soil Survey of Oswego County, NY* (USDA 2025) indicated that multiple soil mapping units are present within the Study Area, in which the majority of the acreage is Canadaigua silt loam which is hydric in nature (Figure 4: Soils Map and Appendix F: Description of Soils Found within the Study Area). The topography within the Study Area consists of low-lying floodplains with land surface elevations ranging between 372-feet above mean sea level (amsl) to approximately 391-feet amsl.

The Study Area is located within the Lake Temalo-Fish Creek watershed (HUC-12 041402020904) and Sixmile Creek watershed (HUC-12 041402020903), a sub-watershed of the Oneida River Watershed (HUC-10 0414020209), within the Oneida Subbasin (HUC-8 04140202). A review of Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map Panel 36075C0494G reveals that the Study Area is located within a Special Flood Hazard Area (SFHA) subject to a 100-year flood and located in floodway area in Zone AE (FEMA, 2013).

None of the waterbodies that flow through the Study Area are submerged lands of the state, located within a NY coastal zone, or designated/nominated for designation as a national or state wild or scenic river. No reservoirs, federal or state parks, forests, or recreation areas were identified within the Study Area.

The identified wetlands and streams are described below and are summarized in Tables 1 and 2, respectively. Color photographs, photograph locations, and photograph directions of the wetlands and streams can be found in Appendix B: Photographs. Wetland data forms are included in Appendix C and upland data forms are included in Appendix D. Stream data forms are located in Appendix E. A table listing

the soils found within the Study Area is provided as Appendix F, and Appendix G contains the résumés of the personnel conducting the delineations.

3.1 Wetlands

Two (2) wetlands were identified within the Study Area. One (1) wetland consisting of palustrine emergent (PEM), palustrine scrub-shrub (PSS) and palustrine forested (PFO) habitat, and the second wetland consists of palustrine emergent (PEM), and palustrine forested (PFO) habitat. (Figure 6: Delineated Aquatic Resources). The wetlands are generally associated with watercourses and are situated within a floodplain complex consisting of a variety of wetland types. Hydrology for both wetlands are the result of high-water tables and floodwaters from the surrounding watercourses. All soil profiles met conditions for hydric soil indicators. The wetland is located within or adjacent to the floodplain of a Fish Creek, which is classified by the New York State Chapter 43-B Environmental Conservation; Article 15 as a C class waterway, which is a water supporting fisheries and suitable for non-contact activities. The NYSDEC Environmental Resource Mapper classifies the wetland identified in the Study Area as a Class 2 Wetland (ID: BRE-14).

A summary of the wetland information is outlined in Table 1: Wetlands Identified Within the Study Area. Wetland and upland data forms are provided in Appendix A: USACE Data Forms. Photographs for wetland and upland data point locations can be found in Appendix B: USACE Photolog. Locations of the wetlands are shown on Figure 6: Delineated Aquatic Resources.

3.2 Waterbodies

One (1) USGS blue-line stream was located within the Study Area. The NYSDEC Environmental Resource Mapper classifies the streams identified in the Study Area as Class C waterways. The stream was characterized as perennial, and is fed from adjacent wetlands, groundwater upwelling zones, and spring/seep origins. On-site stream drains immediately into Fish Creek (NYSDEC Class C(C)) which drains into the Oneida River (NYSDEC Class B(B)) south of the Study Area. Detailed characteristics of the streams identified can be found in the individual data sheets included under Appendix E. Photographs are included in Appendix B. Locations of the waterbodies are shown in Appendix A: Figure 6: Delineated Aquatic Resources. A summary of the streams identified within the Study Area is outlined in Table 2: Waterbodies Identified within the Study Area.

4.0 CONCLUSIONS

RES conducted environmental field surveys of the Study Area in November 2025 to identify wetlands and waterbodies within the Study Area. Two (2) wetlands totaling 31.68.acres and six (6) streams totaling 7,280.88 linear feet were identified and delineated within the Study Area. A summary of the delineated wetlands and streams can be found in Tables 1 and 2.

All statements in this document pertaining to the jurisdictional status of streams and wetlands under USACE and state regulations represent the opinion of RES and are based on current USACE and state guidance. The jurisdictional status of these features may be confirmed by a USACE Jurisdictional Determination and/or by state agencies.

Table 1. Wetlands Identified Within the Study Area							
Feature Designation[1]	Cowardian Classification[3]	HGM Classification	NWI Wetland[4]	NYSDEC Classification[2]	Delineated Area (acres)[5]	Approximate Center Coordinates	
						Latitude	Longitude
W-1	PFO	Riverine/Depressional	No	No	7.94	42.256422	-76.263159
	PSS	Riverine/Depressional	No	No	7.50		
	PEM	Riverine/Depressional	No	No	10.18		
W2	PEM	Riverine/Depressional	No	No	5.87	43.259901	-76.267981
	PFO	Riverine/Depressional	No	No	0.16	43.260525	-76.267756
Total Acreage					31.68		

Notes:
1 RES map designation.
2 As classified by NY Chapter X, Article 1, Part 664. Freshwater Wetlands Maps and Classification
3 Palustrine system wetlands were classified as emergent (PEM), scrub-shrub (PSS), or forested (PFO).
4 National Wetlands Inventory wetland as mapped by the United States Fish and Wildlife Service, 2011.
5 Extent of wetland within the Study Area. Wetland limits extend beyond the study area.

Table 2. Waterbodies Identified Within the Study Area							
Feature Designation[1]	Waterbody	Stream Type	NYSDEC Classification[2]	Delineated Stream Length (Linear Feet)	Within a FEMA Floodplain[3]	Approximate Center Coordinates	
						Latitude	Longitude
S-1	Fish Creek	Perennial	Class C	2,391.83	Yes	43.258974	-76.260017
D-1	UNT to Fish Creek	Ditch	None	1527.82	Yes	43.257986	-76.264422
D-2	UNT to Fish Creek	Ditch	None	255.36	Yes	43.258800	-76.260378
D-3	UNT to Fish Creek	Ditch	None	142.65	Yes	43.258972	-76.260186
D-4	UNT to Fish Creek	Ditch	None	1748.64	Yes	43.256405	-76.260878
D-5	UNT to Fish Creek	Ditch	None	1214.58	Yes	43.254475	-76.263378
Total Length:				7,280.88			

Notes:

1 FPR map designation.
2 As classified by NY Chapter 43-B, Article 15 Use and Protection of Waters. Class C – Waters that support fishing and non-contact activities. Waterbodies that do not have designated water uses are assessed per their receiving waterbody.
3 Waterbodies residing within the limits of a designated Federal Emergency Management Agency (FEMA) 100-year floodplain.

Respectfully submitted,

Lyndon Watkins | Ecologist III | Resource Environmental Solutions, LLC
14 Jupiter Lane, Suite 7 | Colonie, NY 12205

5.0 REFERENCES

Cowardin, D.M., Carter, V., Golet, F.C., and La Roe, E.T. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. Publication No. FWS/OBS-79/31. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. United States Department of the Army, United States Army Engineer Waterways Experiment Station. Technical Report Y-87-1. Vicksburg, Mississippi.

Federal Emergency Management Agency. 2022. *National Flood Hazard Layer. Web Map Service*. Washington, D.C. http://www.fema.gov/library/viewRecord.do?id =3291.

New York State Department of Environmental Conservation: Freshwater Wetlands Delineation Manual. Brown et al.,1995.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at https://websoilsurvey.sc.egov.usda.gov/. Accessed [February 2023].

United States Army Corps of Engineers. 2007. *Jurisdictional Determination Form Instructional Guidebook*. Available from http://www.usace.army.mil.

United States Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region Version 2.0, ed.* J. F. Berkowitz, J. S. Wakeley, R. W. Lichvar, C. V. Noble. ERDC/EL TR-12-9. Vicksburg, Mississippi: United States Army Engineer Research and Development Center.

United States Army Corps of Engineers. 2020. *National Wetland Plant List, version 3.5*. Published 2 November 2021.

United States Fish and Wildlife Service. 2011. *National Wetlands Inventory for Pennsylvania*. Washington, D.C. United States Fish and Wildlife Service, Division of Habitat and Resource Conservation.

United States Geological Survey. 1974, photo-revised 1984. Ashford Hollow 7.5-Minute Quadrangle (1:24,000).

APPENDIX A
Figures

Figure 1
Project Location

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

7.5 Minute Quadrangle Index

Area of Investigation
(±52.81 AC)

N 1 in = 0.25 mi *when printed at 11x17"*

0 0.125 0.25
Miles

Reference: Project limits are approximate and do not reflect a survey. The Area of Investigation is located in the 1:24K Pennellville (43076-C3) 7.5' USGS quadrangle.
Data Source: ESRI USA_Topo_Maps (ESRI 2024); USGS 7.5' quadrangle index (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375

www.res.us

Cartographer: asnyder | POC: Heather Gumb | Path: G:\Projects\NY\113375_Oak_Orchard_Water_Water_Treatment_PRM\PRO\Delineation\20251104_FishCreek_WetlandDelineation.aprx | Layout: Landscape - Figure 1 (Project Location)

Figure 2A
1956 Historic Aerial Imagery

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

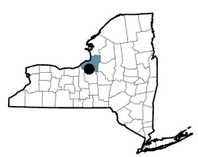
Area of Investigation
(±52.81 AC)

N

1 in = 300 ft *when printed at 11x17"*

0 100 200 300
US Feet

Reference: Project limits are approximate and do not reflect a survey. The background aerial image was acquired on 05/07/1956. Present-day roads and location labels are shown for reference.
Data Source: ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

Figure 2B
1960 Historic Aerial Imagery

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

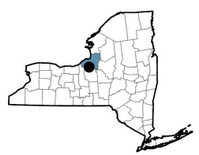
Area of Investigation
(±52.81 AC)

N

1 in = 300 ft *when printed at 11x17"*

0 100 200 300
US Feet

Reference: Project limits are approximate and do not reflect a survey. The background aerial image was acquired on 06/06/1960. Present-day roads and location labels are shown for reference.
Data Source: ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

Figure 2C
1972 Historic Aerial Imagery

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Area of Investigation
(±52.81 AC)

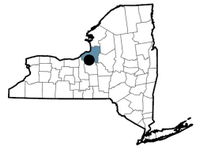
N

1 in = 300 ft *when printed at 11x17"*

0 100 200 300

US Feet

Reference: Project limits are approximate and do not reflect a survey. The background aerial image was acquired on 05/06/1972. Present-day roads and location labels are shown for reference.
Data Source: ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

Figure 2D
2021 Extant Aerial Imagery

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Area of Investigation
(±52.81 AC)

N

1 in = 300 ft *when printed at 11x17"*

0 100 200 300
US Feet

Reference: Project limits are approximate and do not reflect a survey. The background aerial image was acquired in 2021.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375

res
www.res.us

Figure 3A
Existing Conditions - State

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Area of Investigation (±52.81 AC)

DEC Regulated Streams

Classification

C

DEC Regulated Wetlands

Previously Mapped Freshwater Wetlands

Informational Freshwater Wetlands

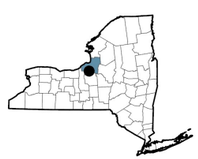
N

1 in = 300 ft *when printed at 11x17"*

0 100 200 300

US Feet

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024); NYS DEC (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

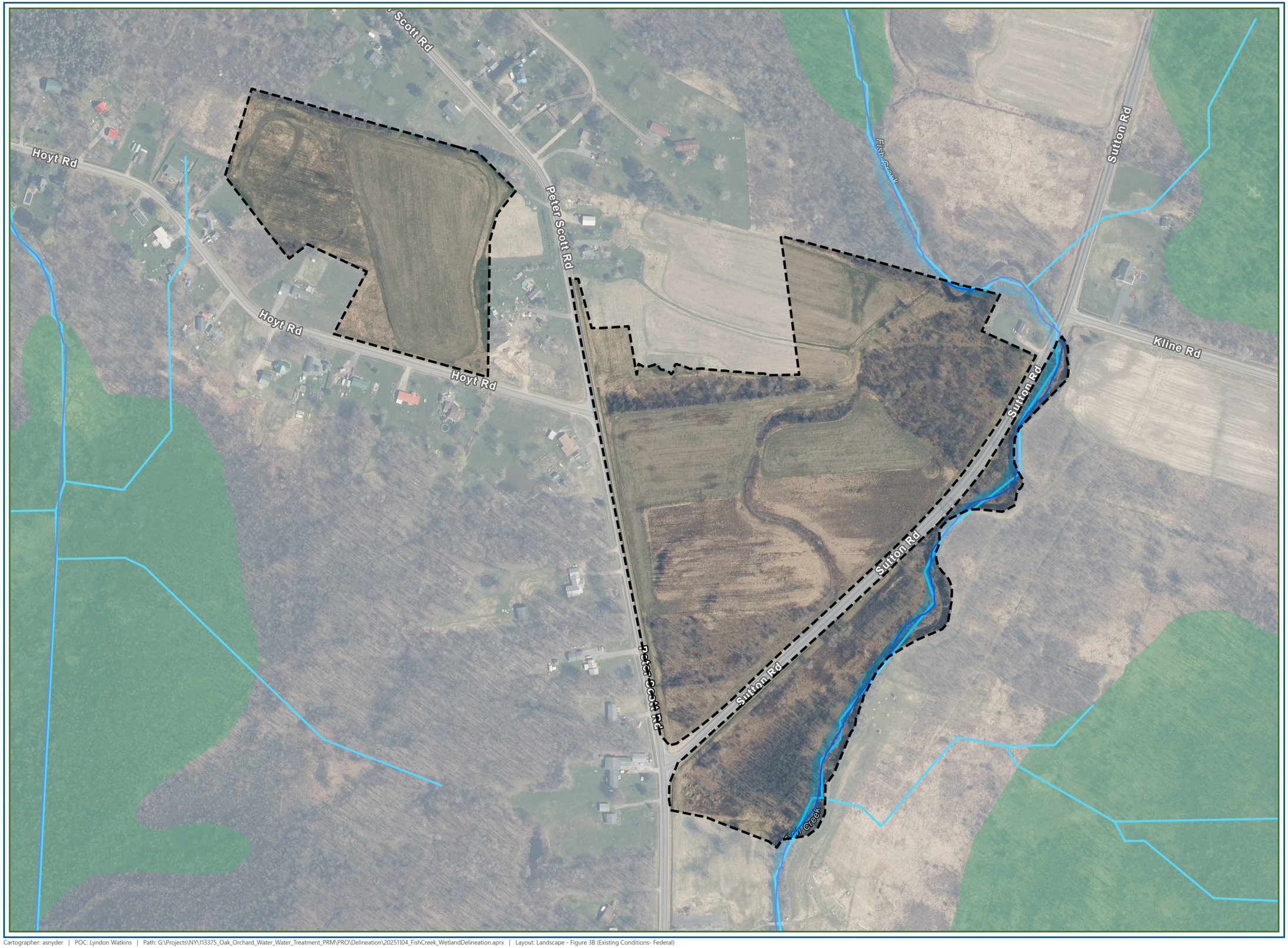


Figure 3B
Existing Conditions - Federal

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Area of Investigation (±52.81 AC)

Streams
- NHD Flowlines
- StreamStats Streamgrid

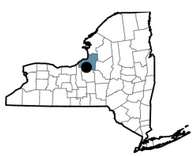
NWI Wetlands
- Freshwater Forested/Shrub Wetland
- Riverine

N

1 in = 300 ft *when printed at 11x17"*

0 100 200 300
US Feet

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024); USFWS NWI (2024); USGS NHD (2024); USGS StreamStats (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/7/2025
Project Number: 113375



res
www.res.us

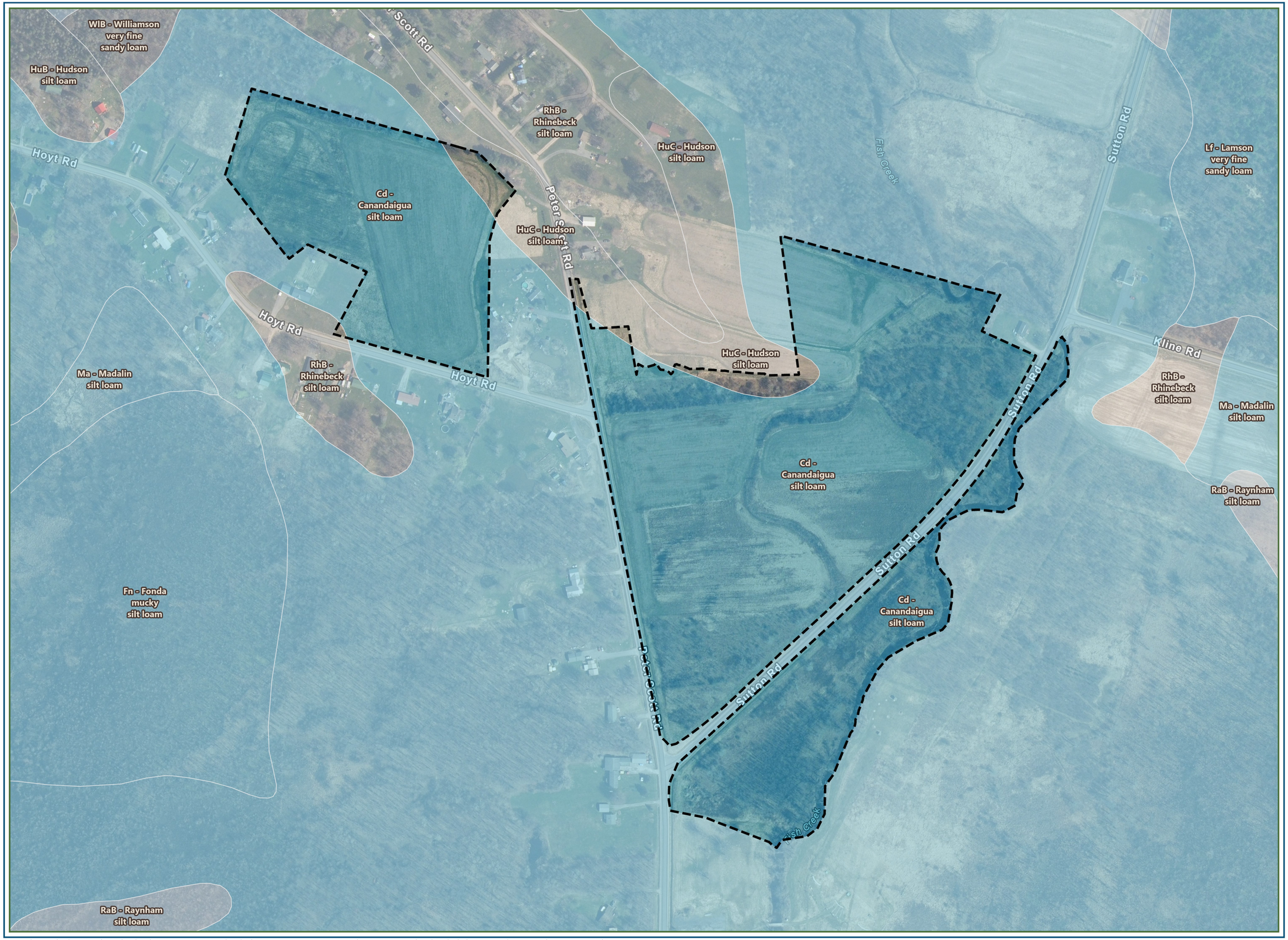


Figure 4
Soil Survey

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Area of Investigation (±52.81 AC)

SSURGO Soil Map Units

- Predominantly Hydric
  66-99% Hydric Classification
- Partially Hydric
  33-66% Hydric Classification
- Predominantly Non-Hydric
  1-33% Hydric Classification
- Non-Hydric
  0% Hydric Classification

N

1 in = 300 ft *when printed at 11x17"*

0 100 200 300

US Feet

Reference: Project limits are approximate and do not reflect a survey. Hydric ratings are based on the SSURGO "Hydric Classification-Presence" field.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024); USDA SSURGO (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375

res
www.res.us

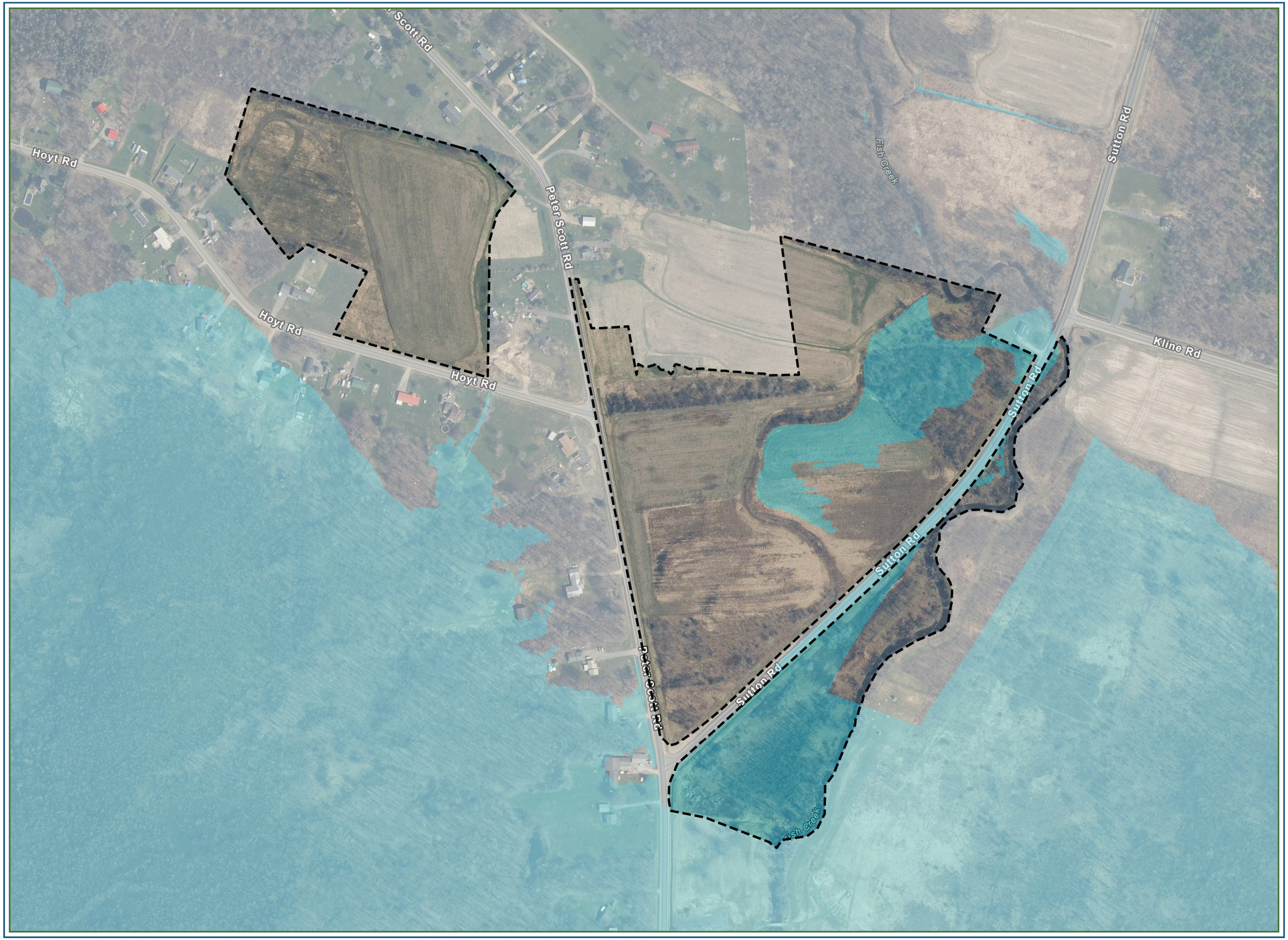


Figure 5
FEMA Flood Hazards

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Area of Investigation (±52.81 AC)

NFHL Flood Hazard Zones

AE | 1% Annual Flood Hazard

N

1 in = 300 ft *when printed at 11x17"*

0 100 200 300

US Feet

Reference: Project limits are approximate and do not reflect a survey.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024); FEMA NFHL (2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375

res
www.res.us

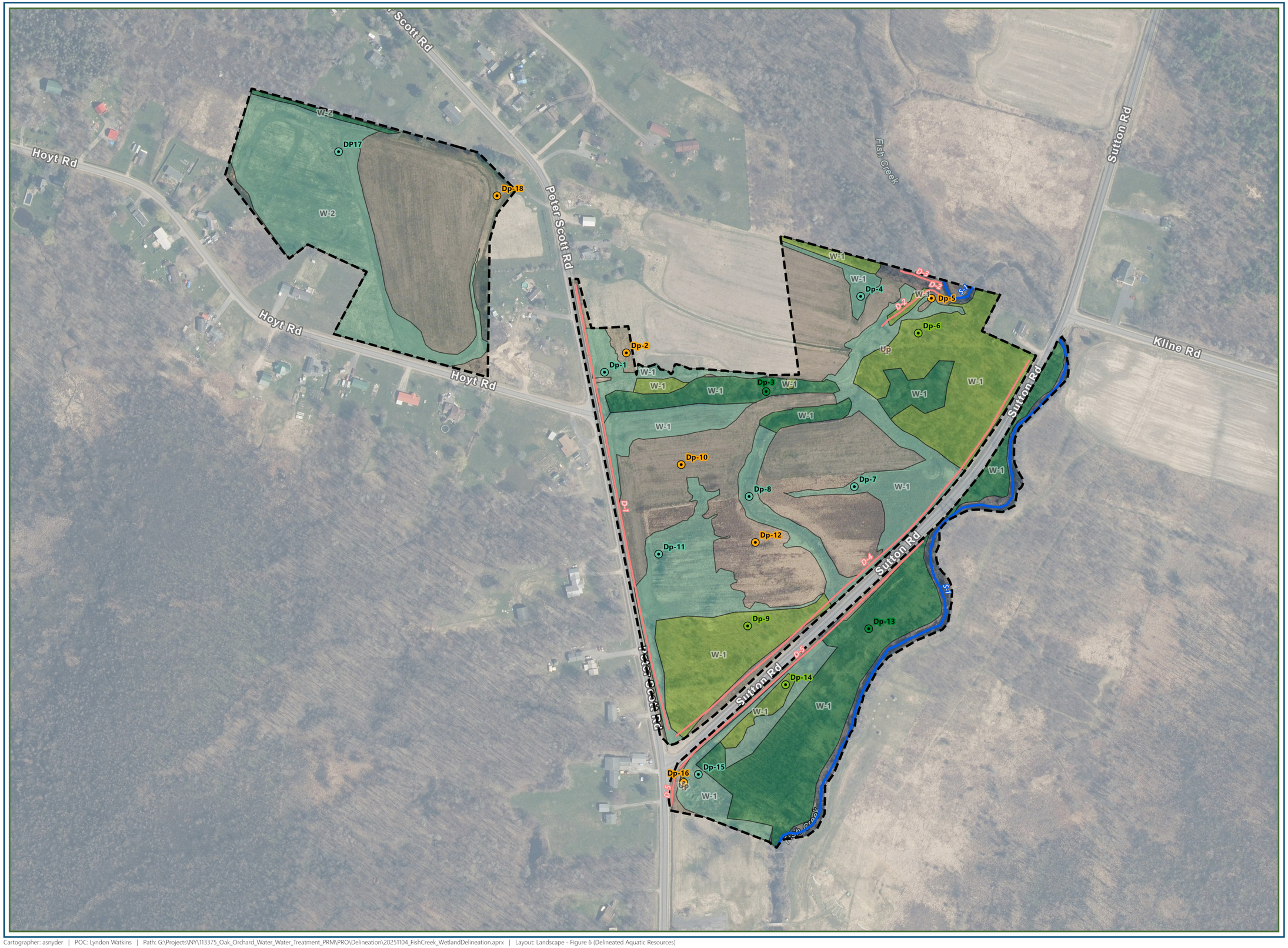


Figure 6
Delineated Aquatic Resources

FCRS Oak Orchard PRM
Clay, Oswego County

76.2626°W 43.2577°N

Area of Investigation (±52.81 AC)

Data Points

Wetland

- PEM | Palustrine Emergent
- PSS | Palustrine Scrub/Shrub
- PFO | Palustrine Forested

Non-Wetland

- Upland

Delineated Streams (±7,280.88 LF)

- Perennial (±2,391.83 LF)
- Ditch (±4,889.05 LF)

Delineated Wetlands (±31.68 AC)

- PEM | Palustrine Emergent (±16.05 AC)
- PSS | Palustrine Scrub/Shrub (±7.50 AC)
- PFO | Palustrine Forested (±8.10 AC)
- Upland, Non-Wetland (±0.03 AC)

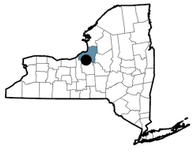
N

1 in = 300 ft *when printed at 11x17"*

0 100 200 300

US Feet

Reference: Project limits are approximate and do not reflect a survey. Aquatic resources beyond the Area of Investigation were not delineated. Site delineation occurred on 11/03/2025 and 11/05/2025.
Data Source: NYS DOP (2021); ESRI Hybrid Reference (ESRI 2024)
Spatial Reference: NAD83 StatePlane NY C (ft)
Date Exported: 11/6/2025
Project Number: 113375



res
www.res.us

APPENDIX B
USACE Data Forms

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	4-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-1
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	hillslope	Local relief (concave, convex, none):	Concave	Slope (%):	2-Jan
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.258136	Long:	-76.264308
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)	X	Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)	X	Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)			X	FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-1

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		

Sapling/Shrub stratum (Plot size: r = 15')			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Herb stratum (Plot size: r = 5')			
1	*Calamagrostis canadensis*	70	Y	OBL
2	*Lythrum salicaria*	20	N	OBL
3	*Juncus effusus*	5	N	OBL
4	*Dichanthelium acuminatum*	5	N	FAC
5	*Phalaris arundinacea*	5	N	FACW
6	*Symphyotrichum novae-angliae*	3	N	FACW
7	*Ranunculus hispidus*	3	N	FAC
8				
9				
10				
11				
12				
	111 = Total Cover		

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0 = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across all Strata:	1	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	95	x 1 =	95
FACW species	8	x 2 =	16
FAC species	8	x 3 =	24
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	111 (A)		135
Prevalence Index = B/A =			1.22 (B)

Hydrophytic Vegetation Indicators:

	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	95%	7.5YR 6/8	5%	C	PL/M	SCL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	4-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-2
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	hillslope	Local relief (concave, convex, none):	Convex	Slope (%):	1-2%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.258314	Long:	-76.264031
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	Y		
Indicators of wetland hydrology present?	N		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)		Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)				FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-2

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		

Sapling/Shrub stratum (Plot size: r = 15')			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Herb stratum (Plot size: r = 5')			
1 *Phleum pratense*	55	Y	FACU
2 *Trifolium repens*	20	N	FACU
3 *Trifolium pratense*	10	N	FACU
4 *Taraxacum officinale*	5	N	FACU
5 *Ranunculus hispidus*	5	N	FAC
6 *Dichanthelium acuminatum*	5	N	FAC
7 *Festuca rubra*	5	N	FACU
8			
9			
10			
11			
12			
	105 = Total Cover		

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0 = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across all Strata:	1	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	0%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column totals	105 (A)		410
Prevalence Index = B/A =			3.90 (B)

Hydrophytic Vegetation Indicators:

- 1 – Rapid Test for Hydrophytic Vegetation
- 2 – Dominance Test is >50%
- 3 – Prevalence Index is ≤3.0[1]
- 4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/1	95%	5YR 5/8	5%	C	PL/M	SCL	
12-18	10YR 6/4	60%	10YR 4/1	40%	C	M	CL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	4-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-3
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.257953	Long:	-76.262267
Datum:	NAD83 NY Central				
Soil Map Unit Name:	HuC: Hudson Silt Loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)	X	Drainage Patterns (B10)
	Saturation (A3)		Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)	X	Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)			X	FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-3

	Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1	*Populus deltoides*	35	Y	FAC
2	*Populus tremuloides*	15	Y	FACU
3				
4				
5				
6				
7				
8				
		50	= Total Cover	

	Sapling/Shrub stratum (Plot size: r = 15')			
1	*Salix discolor*	10	Y	FACW
2	*Populus deltoides*	10	Y	FAC
3	*Lonicera morrowii*	5	N	FACU
4	*Cornus amomum*	5	N	FACW
5				
6				
7				
8				
9				
10				
		30	= Total Cover	

	Herb stratum (Plot size: r = 5')			
1	*Symphyotrichum lanceolatum*	35	Y	FACW
2	*Solidago gigantea*	20	Y	FACW
3	*Cornus amomum*	8	N	FACW
4	*Ranunculus hispidus*	5	N	FAC
5	*Fragaria virginiana*	5	N	FACU
6	*Lonicera morrowii*	3	N	FACU
7	*Salix nigra*	3	N	OBL
8				
9				
10				
11				
12				
		79	= Total Cover	

	Woody vine stratum (Plot size: r = 30')			
1				
2				
3				
4				
5				
6				
		0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across all Strata:	6	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	83%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	3	x 1 =	3
FACW species	78	x 2 =	156
FAC species	50	x 3 =	150
FACU species	28	x 4 =	112
UPL species	0	x 5 =	0
Column totals	159 (A)		421
Prevalence Index = B/A =			2.65 (B)

Hydrophytic Vegetation Indicators:

	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 4/2	92%	5YR 4/6	8%	C	PL/M	SCL	
9-18	10YR 5/2	85%	10YR 5/6	15%	C	M	CL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	4-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-4
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.258827	Long:	-76.261067
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)	X	Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)		Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)	X	Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)			X	FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-4

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		

Sapling/Shrub stratum (Plot size: r = 15')			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Herb stratum (Plot size: r = 5')			
1 *Eleocharis palustris*	60	Y	OBL
2 *Juncus effusus*	20	Y	OBL
3 *Panicum dichotomiflorum*	8	N	FACW
4 *Epilobium coloratum*	3	N	OBL
5 *Mimulus ringens*	3	N	OBL
6 *Rumex crispus*	3	N	FAC
7			
8			
9			
10			
11			
12			
	97 = Total Cover		

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0 = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across all Strata:	2	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	86	x 1 =	86
FACW species	8	x 2 =	16
FAC species	3	x 3 =	9
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	97 (A)		111
Prevalence Index = B/A =			1.14 (B)

Hydrophytic Vegetation Indicators:

	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5Y 4/1	85%	7.5YR 5/6	15%	C	PL/M	SCL	
8-18	10YR 5/2	60%	7.5YR 4/6	40%	C	M	CL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	4-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-5
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	hillslope	Local relief (concave, convex, none):	convex	Slope (%):	1-2%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.258807	Long:	-76.260174
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)		Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)				Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)				FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):	
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland Hydrology Present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-5

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1 *Juglans nigra*	25	Y	FACU
2 *Robinia pseudoacacia*	5	N	FACU
3			
4			
5			
6			
7			
8			
	30	= Total Cover	

Sapling/Shrub stratum (Plot size: r = 15')			
1 *Lonicera morrowii*	5	Y	FACU
2			
3			
4			
5			
6			
7			
8			
9			
10			
	5	= Total Cover	

Herb stratum (Plot size: r = 5')			
1 *Phleum pratense*	40	Y	FACU
2 *Juncus tenuis*	20	Y	FAC
3 *Plantago lanceolata*	10	N	FACU
4 *Plantago major*	8	N	FACU
5 *Taraxacum officinale*	8	N	FACU
6 *Dichanthelium acuminatum*	5	N	FAC
7 *Veronica serpyllifolia*	5	N	FAC
8 *Ambrosia artemisiifolia*	3	N	FACU
9			
10			
11			
12			
	99	= Total Cover	

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across all Strata:	4	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	25%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	104	x 4 =	416
UPL species	0	x 5 =	0
Column totals	134 (A)		506
Prevalence Index = B/A =			3.78 (B)

Hydrophytic Vegetation Indicators:

- 1 – Rapid Test for Hydrophytic Vegetation
- 2 – Dominance Test is >50%
- 3 – Prevalence Index is ≤3.0[1]
- 4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	10YR 5/2	100%					SCL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? N

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	4-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-6
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Terrace	Local relief (concave, convex, none):	none	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.258487	Long:	-76.260342
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)	X	Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)			X	FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):	
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-6

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1 *Fraxinus pennsylvanica*	8	Y	FACW
2 *Betula populifolia*	5	Y	FAC
3			
4			
5			
6			
7			
8			
	13	= Total Cover	

Sapling/Shrub stratum (Plot size: r = 15')			
1 *Ilex verticillata*	20	Y	FACW
2 *Salix discolor*	10	Y	FACW
3 *Viburnum dentatum*	8	N	FAC
4 *Viburnum lentago*	5	N	FAC
5 *Cornus amomum*	3	N	FACW
6			
7			
8			
9			
10			
	46	= Total Cover	

Herb stratum (Plot size: r = 5')			
1 *Solidago rugosa*	35	Y	FAC
2 *Juncus effusus*	25	Y	OBL
3 *Euthamia graminifolia*	10	N	FAC
4 *Solidago gigantea*	8	N	FACW
5 *Calamagrostis canadensis*	8	N	OBL
6 *Symphyotrichum lanceolatum*	8	N	FACW
7 *Epilobium coloratum*	5	N	OBL
8 *Symphyotrichum lateriflorum*	5	N	FAC
9 *Fragaria virginiana*	3	N	FACU
10			
11			
12			
	107	= Total Cover	

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	6	(A)
Total Number of Dominant Species Across all Strata:	6	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	38	x 1 =	38
FACW species	57	x 2 =	114
FAC species	68	x 3 =	204
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column totals	166 (A)		368
Prevalence Index = B/A =			2.22 (B)

Hydrophytic Vegetation Indicators:

	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	95%	7.5YR 4/6	5%	C	PL/M	SCL	
12-18	10YR 6/2	60%	5YR 5/8	40%	C	M	SCL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	4-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-7
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.257072	Long: -76.261157	Datum: NAD83 NY Central
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation X, soil X, or hydrology X significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent. Data point in depressional area within active Soybean field

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)	X	Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)	X	Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)	X	Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)	X	Saturation Visible on Aerial Imagery (C9)
X	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)			X	FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Depressional area within active Soybean field

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-7

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		

Sapling/Shrub stratum (Plot size: r = 15')			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Herb stratum (Plot size: r = 5')			
1	*Eleocharis palustris*	20	Y	OBL
2	*Cyperus esculentus*	15	Y	FACW
3	*Lythrum salicaria*	8	N	OBL
4	*Alisma subcordatum*	5	N	OBL
5				
6				
7				
8				
9				
10				
11				
12				
	48 = Total Cover			

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0 = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across all Strata:	2	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	33	x 1 =	33
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	48 (A)		63
Prevalence Index = B/A =			1.31 (B)

Hydrophytic Vegetation Indicators:

	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: DP-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-12	10YR 5/1	95%	5YR 4/4	5%	C	PL/M	SCL	
12-18	10YR 6/1	75%	7.5YR 5/6	25%	C	M	CL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	4-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-8
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.256985	Long:	-76.262486
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?** Y
Hydric soil present?	Y	
Indicators of wetland hydrology present?	Y	

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent. Data point taken in a drainage swale

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)			Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)	X	Drainage Patterns (B10)
	Saturation (A3)		Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)	X	Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)			X	FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-8

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		

Sapling/Shrub stratum (Plot size: r = 15')			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Herb stratum (Plot size: r = 5')			
1 *Lythrum salicaria*	30	Y	OBL
2 *Phalaris arundinacea*	25	Y	FACW
3 *Solidago rugosa*	15	Y	FAC
4 *Solidago gigantea*	10	N	FACW
5 *Scirpus cyperinus*	10	N	OBL
6 *Carex hystericina*	10	N	OBL
7 *Euthamia graminifolia*	8	N	FAC
8 *Carex lurida*	5	N	OBL
9 *Lobelia siphilitica*	3	N	FACW
10			
11			
12			
	116 = Total Cover		

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0 = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across all Strata:	3	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	55	x 1 =	55
FACW species	38	x 2 =	76
FAC species	23	x 3 =	69
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	116 (A)		200
Prevalence Index = B/A =			1.72 (B)

Hydrophytic Vegetation Indicators:

	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/1	95%	5YR 4/4	5%	C	PL/M	SCL	
12-18	10YR 6/2	70%	7.5YR 4/6	30%	C	M	Sandy loam	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	4-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-9
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Terrace	Local relief (concave, convex, none):	None	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.255791	Long:	-76.262511
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)	X	Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)	X	Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)			X	FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-9

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1 *Populus deltoides*	15	Y	FAC
2 *Fraxinus pennsylvanica*	5	Y	FACW
3			
4			
5			
6			
7			
8			
	20	= Total Cover	

Sapling/Shrub stratum (Plot size: r = 15')			
1 *Ilex verticillata*	15	Y	FACW
2 *Populus deltoides*	8	Y	FAC
3 *Viburnum lentago*	5	N	FAC
4 *Cornus racemosa*	5	N	FAC
5 *Spiraea alba*	5	N	FACW
6 *Fraxinus pennsylvanica*	3	N	FACW
7			
8			
9			
10			
	41	= Total Cover	

Herb stratum (Plot size: r = 5')			
1 *Solidago rugosa*	25	Y	FAC
2 *Juncus effusus*	20	Y	OBL
3 *Euthamia graminifolia*	8	N	FAC
4 *Glyceria striata*	8	N	OBL
5 *Symphyotrichum lateriflorum*	5	N	FAC
6 *Onoclea sensibilis*	5	N	FACW
7 *Ulmus americana*	3	N	FACW
8			
9			
10			
11			
12			
	74	= Total Cover	

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	6	(A)
Total Number of Dominant Species Across all Strata:	6	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	28	x 1 =	28
FACW species	36	x 2 =	72
FAC species	71	x 3 =	213
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	135 (A)		313
Prevalence Index = B/A =			2.32 (B)

Hydrophytic Vegetation Indicators:

	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 4/1	98%	5YR 3/4	2%	C	PL/M	SCL	
14-18	10YR 4/1	50%	10YR 6/1	30%	D	M	CL	
			7.5YR 5/8	20%	C	M		

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	4-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-10
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Terrace	Local relief (concave, convex, none):	None	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.257282	Long:	-76.263343
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation X, soil X, or hydrology X significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	Y		
Indicators of wetland hydrology present?	N		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent. Data point taken within active Soybean field

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)			Secondary Indicators (minimum of two required)
	Surface Water (A1)	Marl Deposits (B15)	Surface Soil Cracks (B6)
	High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
	Saturation (A3)	Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
	Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
	Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
	Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
	Iron Deposits (B5)		Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
	Water-Stained Leaves (B9)		Microtopographic Relief (D4)
	Aquatic Fauna (B13)		FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-10

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		

Sapling/Shrub stratum (Plot size: r = 15')			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Herb stratum (Plot size: r = 5')			
1 *Glycine max*	35	Y	UPL
2 *Ambrosia artemisiifolia*	20	Y	FACU
3 *Panicum dichotomiflorum*	8	N	FACW
4 *Potentilla norvegica*	3	N	FAC
5 *Festuca rubra*	2	N	FACU
6			
7			
8			
9			
10			
11			
12			
	68 = Total Cover		

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0 = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across all Strata:	2	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	0%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	8	x 2 =	16
FAC species	3	x 3 =	9
FACU species	22	x 4 =	88
UPL species	35	x 5 =	175
Column totals	68 (A)		288
Prevalence Index = B/A =			4.24 (B)

Hydrophytic Vegetation Indicators:

- 1 – Rapid Test for Hydrophytic Vegetation
- 2 – Dominance Test is >50%
- 3 – Prevalence Index is ≤3.0[1]
- 4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/2	92%	7.5YR 4/4	8%	C	PL/M	SCL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	6-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-11
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.256457	Long:	-76.263632
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)			Secondary Indicators (minimum of two required)
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)	X	Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)				FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):	
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No		Depth (inches):	6

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation to a depth of 6 inches noted, despite lack of Water table

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-11

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		

Sapling/Shrub stratum (Plot size: r = 15')			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Herb stratum (Plot size: r = 5')			
1 *Juncus effusus*	50	Y	OBL
2 *Lythrum salicaria*	25	Y	OBL
3 *Eleocharis palustris*	15	N	OBL
4 *Symphyotrichum lanceolatum*	5	N	FACW
5 *Typha angustifolia*	5	N	OBL
6 *Eupatorium perfoliatum*	3	N	FACW
7 *Acer rubrum*	2	N	FAC
8			
9			
10			
11			
12			
	105 = Total Cover		

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0 = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across all Strata:	2	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	95	x 1 =	95
FACW species	8	x 2 =	16
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	105 (A)		117
Prevalence Index = B/A =			1.11 (B)

Hydrophytic Vegetation Indicators:

X	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/1	80%	7.5YR 4/4	20%	C	PL/M	SCL	
12-18	10YR 5/2	60%	7.5YR 4/6	40%	C	M	SCL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- ___ 2cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148**)
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	6-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-12
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Terrace	Local relief (concave, convex, none):	none	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.256561	Long:	-76.26241
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation X, soil X, or hydrology X significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent. Data point taken within active soybean field

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)		Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)	X	Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)				FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):	
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Data point taken in active soybean field

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-12

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		

Sapling/Shrub stratum (Plot size: r = 15')			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Herb stratum (Plot size: r = 5')			
1 *Ambrosia artemisiifolia*	15	Y	FACU
2 *Potentilla norvegica*	15	Y	FAC
3 *Glycine max*	8	Y	UPL
4 *Oenothera biennis*	8	Y	FACU
5 *Carex vulpinoidea*	5	N	OBL
6 *Lobelia inflata*	5	N	FACU
7 *Juncus tenuis*	3	N	FAC
8 *Cerastium fontanum*	2	N	FACU
9 *Medicago lupilina*	2	N	UPL
10 *Ludwigia palustris*	2	N	OBL
11			
12			
	65 = Total Cover		

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0 = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across all Strata:	4	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	25%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:

OBL species	7	x 1 =	7
FACW species	0	x 2 =	0
FAC species	18	x 3 =	54
FACU species	30	x 4 =	120
UPL species	10	x 5 =	50
Column totals	65 (A)		231
Prevalence Index = B/A =			3.55 (B)

Hydrophytic Vegetation Indicators:

- 1 – Rapid Test for Hydrophytic Vegetation
- 2 – Dominance Test is >50%
- 3 – Prevalence Index is ≤3.0[1]
- 4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? N

Remarks: (Include photo numbers here or on a separate sheet)

Some Hydrophytic vegetation is attempting to establish within the soybean field, most likely due to the disturbance caused by tilling

SOIL Sampling Point: DP-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 4/2	95%	5YR 4/6	5%	C	PL/M	SCL	
13-18	10YR 5/3	80%	7.5YR 4/6	20%	C	M	SCL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- ___ 2cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148**)
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

Hydric soil indicator F3 met within the top 13 inches of soil. Most likely due to recent tillage of the field, layer beneath does not m

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	6-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-13
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Terrace	Local relief (concave, convex, none):	none	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.255761	Long:	-76.260982
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)		Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
X	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
X	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)	X	Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)				FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Data point taken in active floodplain of Fish Creek, evidence of seasonal high water present

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-13

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1 *Acer rubrum*	55	Y	FAC
2 *Fraxinus pennsylvanica*	15	N	FACW
3 *Salix nigra*	8	N	OBL
4			
5			
6			
7			
8			
	78	= Total Cover	

Sapling/Shrub stratum (Plot size: r = 15')			
1 *Acer rubrum*	15	Y	FAC
2 *Lonicera morrowii*	3	N	FACU
3			
4			
5			
6			
7			
8			
9			
10			
	18	= Total Cover	

Herb stratum (Plot size: r = 5')			
1 *Phragmites australis*	30	Y	FACW
2 *Solidago rugosa*	10	Y	FAC
3 *Solidago gigantea*	8	N	FACW
4 *Symphyotrichum lanceolatum*	8	N	FACW
5 *Geum canadense*	5	N	FAC
6 *Juncus tenuis*	3	N	FAC
7 *Symphyotrichum lateriflorum*	3	N	FAC
8			
9			
10			
11			
12			
	67	= Total Cover	

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across all Strata:	4	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	8	x 1 =	8
FACW species	61	x 2 =	122
FAC species	91	x 3 =	273
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column totals	163 (A)		415
Prevalence Index = B/A =			2.55 (B)

Hydrophytic Vegetation Indicators:

	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 4/1	90%	2.5YR 3/4	10%	C	PL/M	SCL	
14-18	10YR 5/2	75%	7.5YR 5/8	25%	C	M	SCL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	6-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-14
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Terrace	Local relief (concave, convex, none):	none	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.255248	Long:	-76.262035
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y
Hydric soil present?	Y
Indicators of wetland hydrology present?	Y
Is the sampled area within a wetland?	Y

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

	Surface Water (A1)		Marl Deposits (B15)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)
	Saturation (A3)		Oxidized Rhizospheres on Living Roots (C3)
	Water Marks (B1)		Presence of Reduced Iron (C4)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)
	Drift Deposits (B3)		Thin Muck Surface (C7)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)
	Iron Deposits (B5)		
	Inundation Visible on Aerial Imagery (B7)		
	Water-Stained Leaves (B9)		
	Aquatic Fauna (B13)		
	Sparsely Vegetated Concave Surface (B8)		

Secondary Indicators (minimum of two required)

	Surface Soil Cracks (B6)
	Drainage Patterns (B10)
	Moss Trim Lines (B16)
	Dry-Season Water Table (C2)
	Crayfish Burrows (C8)
X	Saturation Visible on Aerial Imagery (C9)
	Stunted or Stressed Plants (D1)
X	Geomorphic Position (D2)
	Shallow Aquitard (D3)
	Microtopographic Relief (D4)
X	FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-14

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1 *Fraxinus pennsylvanica*	5	Y	FACW
2			
3			
4			
5			
6			
7			
8			
	5	= Total Cover	

Sapling/Shrub stratum (Plot size: r = 15')			
1 *Salix discolor*	45	Y	FACW
2 *Fraxinus Pennsylvanica*	5	N	FACW
3			
4			
5			
6			
7			
8			
9			
10			
	50	= Total Cover	

Herb stratum (Plot size: r = 5')			
1 *Onoclea sensibilis*	35	Y	FACW
2 *Lythrum salicaria*	10	N	OBL
3 *Symphyotrichum lanceolatum*	8	N	FACW
4 *Solidago gigantea*	5	N	FACW
5 *Epilobium coloratum*	3	N	OBL
6 *Doellingeria umbellata*	3	N	FACW
7 *Lysimachia nummularia*	3	N	FACW
8			
9			
10			
11			
12			
	67	= Total Cover	

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across all Strata:	3	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	13	x 1 =	13
FACW species	109	x 2 =	218
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	122 (A)		231
Prevalence Index = B/A =			1.89 (B)

Hydrophytic Vegetation Indicators:

X	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 4/1	88%	5YR 4/4	12%	C	PL/M	SCL	
13-18	10YR 6/2	55%	7.5YR 4/6	45%	C	M	Silt Loam	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	6-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-15
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Terrace	Local relief (concave, convex, none):	none	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.254419	Long:	-76.263141
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)	X	Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)	X	Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)			X	FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-15

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0	= Total Cover	

Sapling/Shrub stratum (Plot size: r = 15')	Absolute % Cover	Dominant Species?	Indicator Staus
1 *Cornus amomum*	8	Y	FACW
2 *Fraxinus pennsylvanica*	3	Y	FACW
3			
4			
5			
6			
7			
8			
9			
10			
	11	= Total Cover	

Herb stratum (Plot size: r = 5')	Absolute % Cover	Dominant Species?	Indicator Staus
1 *Lythrum salicaria*	30	Y	OBL
2 *Juncus effusus*	20	Y	OBL
3 *Solidago altissima*	10	Y	FACU
4 *Solidago gigantea*	8	N	FACW
5 *Geum canadense*	8	N	FAC
6 *Cornus amomum*	5	N	FACW
7 *Euthamia graminifolia*	5	N	FAC
8 *Glyceria striata*	5	N	OBL
9 *Chelone glabra*	5	N	OBL
10 *Agrostis stolonifera*	5	N	FACW
11 *Vitis riparia*	3	N	FAC
12			
	104	= Total Cover	

Woody vine stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across all Strata:	5	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	80%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	60	x 1 =	60
FACW species	29	x 2 =	58
FAC species	16	x 3 =	48
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column totals	115 (A)		206
Prevalence Index = B/A =			1.79 (B)

Hydrophytic Vegetation Indicators:

	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: DP-15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-15	10YR 4/2	92%	7.5YR 4/6	8%	C	PL	SCL	
15-18	10YR 4/2	60%	7.5YR 4/6	35%	C	M	SCL	
			10YR 6/1	5%	D	M		

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	6-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-16
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Terrace	Local relief (concave, convex, none):	convex	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.254345	Long:	-76.263327
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	Y		
Indicators of wetland hydrology present?	N		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent. Data point taken on what appears to be an old fill pile

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Marl Deposits (B15)	Surface Soil Cracks (B6)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-16

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0 = Total Cover		

Sapling/Shrub stratum (Plot size: r = 15')			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Herb stratum (Plot size: r = 5')			
1 *Phleum pratense*	40	Y	FACU
2 *Solidago altissima*	30	Y	FACU
3 *Galium mollugo*	10	N	FACU
4 *Festuca rubra*	10	N	FACU
5 *Taraxacum officinale*	8	N	FACU
6 *Plantago lanceolata*	5	N	FACU
7 *Ranunculus hispidus*	3	N	FAC
8 *Symphyotrichum novae-angliae*	3	N	FACW
9			
10			
11			
12			
	109 = Total Cover		

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0 = Total Cover		

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across all Strata:	2	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	0%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	0	x 1 =	0
FACW species	3	x 2 =	6
FAC species	3	x 3 =	9
FACU species	103	x 4 =	412
UPL species	0	x 5 =	0
Column totals	109 (A)		427
Prevalence Index = B/A =			3.92 (B)

Hydrophytic Vegetation Indicators:

- 1 – Rapid Test for Hydrophytic Vegetation
- 2 – Dominance Test is >50%
- 3 – Prevalence Index is ≤3.0[1]
- 4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 4/2	92%	10YR 5/8	8%	C	PL/M	SCL	hit rocks at 14"

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- ___ 2cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148**)
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 14

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	6-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-17
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	concave	Slope (%):	0-1%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.26018	Long:	-76.267657
Datum:	NAD83 NY Central				
Soil Map Unit Name:	Cd: Canandaigua silt loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)		Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)	X	Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)			X	Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)			X	FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes		No	X	Depth (inches):
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-17

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0	= Total Cover	

Sapling/Shrub stratum (Plot size: r = 15')	Absolute % Cover	Dominant Species?	Indicator Staus
1 *Fraxinus pennsylvanica*	5	Y	FACW
2 *Cornus amomum*	3	Y	FACW
3			
4			
5			
6			
7			
8			
9			
10			
	8	= Total Cover	

Herb stratum (Plot size: r = 5')	Absolute % Cover	Dominant Species?	Indicator Staus
1 *Juncus effusus*	40	Y	OBL
2 *Lythrum salicaria*	20	Y	OBL
3 *Onoclea sensibilis*	15	N	FACW
4 *Phalaris arundinacea*	15	N	FACW
5 *Doellingeria umbellata*	5	N	FACW
6 *Scirpus cyperinus*	3	N	OBL
7 *Solidago altissima*	3	N	FACU
8			
9			
10			
11			
12			
	101	= Total Cover	

Woody vine stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across all Strata:	4	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:			
OBL species	63	x 1 =	63
FACW species	43	x 2 =	86
FAC species	0	x 3 =	0
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column totals	109 (A)		161
Prevalence Index = B/A =			1.48 (B)

Hydrophytic Vegetation Indicators:

	1 – Rapid Test for Hydrophytic Vegetation
X	2 – Dominance Test is >50%
X	3 – Prevalence Index is ≤3.0[1]
	4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
	Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: DP-17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-11	10YR 4/2	98%	5YR 3/4	2%	C	PL/M	SCL	
11-18	10YR 6/2	75%	7.5YR 5/8	25%	C	M	SCL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site:	Fish Creek Restoration Site	City/County:	Oswego County	Sampling Date:	6-Nov-2025
Applicant/Owner:	RES	State:	NY	Sampling Point:	DP-18
Investigator(s):	Lyndon Watkins, Jessica Hefferon	Section, Township, Range:	Pennellville		
Landform (hillslope, terrace, etc.):	Hillslope	Local relief (concave, convex, none):	Convex	Slope (%):	1-3%
Subregion (LRR or MLRA):	LRR: L, MLRA: 101	Lat:	43.259768	Long:	-76.265658
Datum:	NAD83 NY Central				
Soil Map Unit Name:	HuC: Hudson Silt Loam	NWI Classification:	None		

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N		

Remarks: (Explain alternative procedures here or in a separate report)

A significant drought for much of the growing season has left a majority of groundwater absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)				Secondary Indicators (minimum of two required)	
	Surface Water (A1)		Marl Deposits (B15)		Surface Soil Cracks (B6)
	High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	Saturation (A3)		Oxidized Rhizospheres on Living Roots (C3)		Moss Trim Lines (B16)
	Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)
	Drift Deposits (B3)		Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
	Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
	Iron Deposits (B5)				Geomorphic Position (D2)
	Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D3)
	Water-Stained Leaves (B9)				Microtopographic Relief (D4)
	Aquatic Fauna (B13)				FAC-Neutral Test (D5)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):	
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland Hydrology Present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-18

Tree stratum (Plot size: r = 30')	Absolute % Cover	Dominant Species?	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
	0	= Total Cover	

Sapling/Shrub stratum (Plot size: r = 15')			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0	= Total Cover	

Herb stratum (Plot size: r = 5')			
1 *Phleum pratense*	70	Y	FACU
2 *Trifolium pratense*	20	N	FACU
3 *Galium mollugo*	5	N	FACU
4 *Phalaris arundinacea*	5	N	FACW
5 *Chicorium intybus*	5	N	UPL
6 *Taraxacum officinale*	3	N	FACU
7 *Lactuca canadensis*	3	N	FACU
8			
9			
10			
11			
12			
	111	= Total Cover	

Woody vine stratum (Plot size: r = 30')			
1			
2			
3			
4			
5			
6			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across all Strata:	1	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	0%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	101	x 4 =	404
UPL species	5	x 5 =	25
Column totals	111 (A)		439
Prevalence Index = B/A =			3.95 (B)

Hydrophytic Vegetation Indicators:

- 1 – Rapid Test for Hydrophytic Vegetation
- 2 – Dominance Test is >50%
- 3 – Prevalence Index is ≤3.0[1]
- 4 – Morphogical Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and all woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL Sampling Point: DP-18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 4/3	100%					SCL	

[1]Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. [2]Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)* **(LRR N, MLRA 136)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)***

Indicators for Problematic Hydric Soils[3]*:

- 2cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? N

Remarks:

APPENDIX C
USACE Photolog

DP-001 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-002 UPL

Photo 1: (UPL) facing North.

Photo 2: (UPL) facing East.

Photo 3: (UPL) facing West.

Photo 4: (UPL) facing South.

Photo 5: Soil profile.

DP-003 PFO

Photo 1: (PFO) facing North.

Photo 2: (PFO) facing East.

Photo 3: (PFO) facing West.

Photo 4: (PFO) facing South.

Photo 5: Soil profile.

DP-004 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-005 UPL

Photo 1: (UPL) facing North.

Photo 2: (UPL) facing East.

Photo 3: (UPL) facing West.

Photo 4: (UPL) facing South.

Photo 5: Soil profile.

DP-006 PSS

Photo 1: (PSS) facing North.

Photo 2: (PSS) facing East.

Photo 3: (PSS) facing West.

Photo 4: (PSS) facing South.

Photo 5: Soil profile.

DP-007 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-008 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-009 PSS

Photo 1: (PSS) facing North.

Photo 2: (PSS) facing East.

Photo 3: (PSS) facing West.

Photo 4: (PSS) facing South.

Photo 5: Soil profile.

DP-010 UPL

Photo 1: (UPL) facing North.

Photo 2: (UPL) facing East.

Photo 5: Soil profile.

Photo 3: (UPL) facing West.

Photo 4: (UPL) facing South.

DP-011 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-012 UPL

Photo 1: (UPL) facing North.

Photo 2: (UPL) facing East.

Photo 3: (UPL) facing West.

Photo 4: (UPL) facing South.

Photo 5: Soil profile.

DP-013 PFO

Photo 1: (PFO) facing North.

Photo 2: (PFO) facing East.

Photo 3: (PFO) facing West.

Photo 4: (PFO) facing South.

Photo 5: Soil profile.

DP-014 PSS

Photo 1: (PSS) facing North.

Photo 2: (PSS) facing East.

Photo 3: (PSS) facing West.

Photo 4: (PSS) facing South.

Photo 5: Soil profile.

DP-015 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-016 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-017 PEM

Photo 1: (PEM) facing North.

Photo 2: (PEM) facing East.

Photo 3: (PEM) facing West.

Photo 4: (PEM) facing South.

Photo 5: Soil profile.

DP-018 UPL

Photo 1: (UPL) facing North.

Photo 2: (UPL) facing East.

Photo 3: (UPL) facing West.

Photo 4: (UPL) facing South.

Photo 5: Soil profile.

APPENDIX D
Stream Data Forms and Photographs

Stream Classification Data Form

Stream Name/Code:	S1
Sampling Location:	Fish Creek Resotration Site
Date/Time:	11/4/2025
Investigators:	JH, LW

Photos		**GPS Point**
DS	**US**	
X	X	43.258974, -76.260017

Weather Conditions:	
	Sunny
	Partly Cloudy
X	Couldy
X	Rain

5-Day Precipitation?		
	Yes	X
	No	

Watershed Characteristics	
X	Forest
X	Pasture
X	Old Field
X	Open Field
X	Wetland
X	Mixed Used
	Industrial
	Mining
X	Residential

Recommended USACE JD Status	
X	TNW
	RPW
	Non-RPW

Stream Type:	
X	Perennial
	Intermittent
	Ephemeral
X	Ditch

Macroinvertebrate Observations

Other Observations

Stream Hydrology	
Estimated Flow (gpm)	N/A
Wetted Width (ft)	15 ft
Water Depth (ft)	3 ft

Hydrology Source(s)	
X	Spring
	Seep
	Run-off
	Pond

Substrate Type(s)	
	Bedrock
	Boulder
X	Cobble
X	Gravel
X	Sand
X	Silt
X	Clay
	Artificial

Channel Embeddedness	
	Completely (100 %)
	Mostly (75 %)
X	Halfway (50 %)
	Little/None (0-33%)

Channel Conditions	
15 ft	Active Width (ft)
N/A	Bed/Banks
N/A	Alluvial Channel
Med	Eroded Channel
N/A	Debris -filled
Med	Terrestrial Vegetation

Stream Classification Data Form

Stream Name/Code:	D1
Sampling Location:	Fish Creek Resotration Site
Date/Time:	11/4/2025
Investigators:	JH, LW

Photos		**GPS Point**
DS	**US**	
X	X	43.257986, -76.264422

Weather Conditions:	
	Sunny
	Partly Cloudy
X	Couldy
X	Rain

5-Day Precipitation?		
	Yes	X
	No	

Watershed Characteristics	
X	Forest
X	Pasture
X	Old Field
X	Open Field
X	Wetland
X	Mixed Used
	Industrial
	Mining
X	Residential

Recommended USACE JD Status	
	TNW
	RPW
X	Non-RPW

Stream Type:	
	Perennial
	Intermittent
	Ephemeral
X	Ditch

Macroinvertebrate Observations

Other Observations

Stream Hydrology	
Estimated Flow (gpm)	N/A
Wetted Width (ft)	2 ft
Water Depth (ft)	N/A

Hydrology Source(s)	
	Spring
	Seep
X	Run-off
	Pond

Substrate Type(s)	
	Bedrock
	Boulder
	Cobble
	Gravel
	Sand
X	Silt
X	Clay
	Artificial

Channel Embeddedness	
	Completely (100 %)
	Mostly (75 %)
X	Halfway (50 %)
	Little/None (0-33%)

Channel Conditions	
2 ft	Active Width (ft)
N/A	Bed/Banks
N/A	Alluvial Channel
Low	Eroded Channel
Med	Debris -filled
High	Terrestrial Vegetation

Stream Classification Data Form

Stream Name/Code:	D2
Sampling Location:	Fish Creek Resotration Site
Date/Time:	11/4/2025
Investigators:	JH, LW

Photos		**GPS Point**
DS	**US**	
X	X	43.258800, -76.260378

Weather Conditions:	
	Sunny
	Partly Cloudy
X	Couldy
X	Rain

5-Day Precipitation?		
	Yes	X
	No	

Watershed Characteristics	
X	Forest
X	Pasture
X	Old Field
X	Open Field
X	Wetland
X	Mixed Used
	Industrial
	Mining
X	Residential

Recommended USACE JD Status	
	TNW
	RPW
X	Non-RPW

Stream Type:	
	Perennial
	Intermittent
	Ephemeral
X	Ditch

Macroinvertebrate Observations

Other Observations

Stream Hydrology	
Estimated Flow (gpm)	N/A
Wetted Width (ft)	1 ft
Water Depth (ft)	N/A

Hydrology Source(s)	
	Spring
	Seep
X	Run-off
	Pond

Substrate Type(s)	
	Bedrock
	Boulder
	Cobble
	Gravel
	Sand
X	Silt
X	Clay
	Artificial

Channel Embeddedness	
	Completely (100 %)
	Mostly (75 %)
X	Halfway (50 %)
	Little/None (0-33%)

Channel Conditions	
1 ft	Active Width (ft)
N/A	Bed/Banks
N/A	Alluvial Channel
Low	Eroded Channel
High	Debris -filled
High	Terrestrial Vegetation

Stream Classification Data Form

Stream Name/Code:	D3
Sampling Location:	Fish Creek Resotration Site
Date/Time:	11/4/2025
Investigators:	JH, LW

Photos		**GPS Point**
DS	**US**	
X	X	43.258972, -76.260186

Weather Conditions:	
	Sunny
	Partly Cloudy
X	Couldy
X	Rain

5-Day Precipitation?		
	Yes	X
	No	

Watershed Characteristics	
X	Forest
X	Pasture
X	Old Field
X	Open Field
X	Wetland
X	Mixed Used
	Industrial
	Mining
X	Residential

Recommended USACE JD Status	
	TNW
	RPW
X	Non-RPW

Stream Type:	
	Perennial
	Intermittent
	Ephemeral
X	Ditch

Macroinvertebrate Observations

Other Observations

Stream Hydrology	
Estimated Flow (gpm)	N/A
Wetted Width (ft)	2 ft
Water Depth (ft)	3 in

Hydrology Source(s)	
	Spring
	Seep
X	Run-off
	Pond

Substrate Type(s)	
	Bedrock
	Boulder
	Cobble
	Gravel
	Sand
X	Silt
X	Clay
	Artificial

Channel Embeddedness	
	Completely (100 %)
	Mostly (75 %)
X	Halfway (50 %)
	Little/None (0-33%)

Channel Conditions	
2 ft	Active Width (ft)
N/A	Bed/Banks
N/A	Alluvial Channel
Low	Eroded Channel
Med	Debris -filled
Med	Terrestrial Vegetation

Stream Classification Data Form

Stream Name/Code:	D4
Sampling Location:	Fish Creek Resotration Site
Date/Time:	11/4/2025
Investigators:	JH, LW

Photos		**GPS Point**
DS	**US**	
X	X	43.256405, -76.260878

Weather Conditions:	
	Sunny
	Partly Cloudy
X	Couldy
X	Rain

5-Day Precipitation?		
	Yes	X
	No	

Watershed Characteristics	
X	Forest
X	Pasture
X	Old Field
X	Open Field
X	Wetland
X	Mixed Used
	Industrial
	Mining
X	Residential

Recommended USACE JD Status	
	TNW
	RPW
X	Non-RPW

Stream Type:	
	Perennial
	Intermittent
	Ephemeral
X	Ditch

Macroinvertebrate Observations

Other Observations

Stream Hydrology	
Estimated Flow (gpm)	N/A
Wetted Width (ft)	2 ft
Water Depth (ft)	3 in

Hydrology Source(s)	
	Spring
	Seep
X	Run-off
	Pond

Substrate Type(s)	
	Bedrock
	Boulder
	Cobble
	Gravel
	Sand
X	Silt
X	Clay
	Artificial

Channel Embeddedness	
	Completely (100 %)
	Mostly (75 %)
X	Halfway (50 %)
	Little/None (0-33%)

Channel Conditions	
2 ft	Active Width (ft)
N/A	Bed/Banks
N/A	Alluvial Channel
Low	Eroded Channel
Med	Debris -filled
High	Terrestrial Vegetation

Stream Classification Data Form

Stream Name/Code:	D5
Sampling Location:	Fish Creek Resotration Site
Date/Time:	11/4/2025
Investigators:	JH, LW

Photos		**GPS Point**
DS	**US**	
X	X	43.254475, -76.263378

Weather Conditions:	
	Sunny
	Partly Cloudy
X	Couldy
X	Rain

5-Day Precipitation?		
	Yes	X
	No	

Watershed Characteristics	
X	Forest
X	Pasture
X	Old Field
X	Open Field
X	Wetland
X	Mixed Used
	Industrial
	Mining
X	Residential

Recommended USACE JD Status	
	TNW
	RPW
X	Non-RPW

Stream Type:	
	Perennial
	Intermittent
	Ephemeral
X	Ditch

Macroinvertebrate Observations

Other Observations

Stream Hydrology	
Estimated Flow (gpm)	N/A
Wetted Width (ft)	2 ft
Water Depth (ft)	N/A

Hydrology Source(s)	
	Spring
	Seep
X	Run-off
	Pond

Substrate Type(s)	
	Bedrock
	Boulder
	Cobble
	Gravel
	Sand
X	Silt
X	Clay
	Artificial

Channel Embeddedness	
	Completely (100 %)
	Mostly (75 %)
X	Halfway (50 %)
	Little/None (0-33%)

Channel Conditions	
2 ft	Active Width (ft)
N/A	Bed/Banks
N/A	Alluvial Channel
Low	Eroded Channel
Med	Debris -filled
High	Terrestrial Vegetation

Photo 1: Stream S-1 Perennial, Facing Downstream

Photo 2: Stream S-1 Perennial, Facing Upstream

Photo 3: Stream D-1 Ditch, Facing Downstream

Photo 4: Stream D-1 Ditch, Facing Upstream

Photo 5: Stream D-2 Ditch, Facing Downstream

Photo 6: Stream D-2 Ditch, Facing Upstream

Photo 7: Stream D-3 Ditch, Facing Downstream

Photo 8: Stream D-3 Ditch, Facing Upstream

Photo 9: Stream D-4 Ditch, Facing Downstream

Photo 10: Stream D-4 Ditch, Facing Upstream

Photo 9: Stream D-5 Ditch, Facing Downstream

Photo 10: Stream D-5 Ditch, Facing Upstream

APPENDIX E
Soils Found Within the Study Area

Descriptions of Soils Found Within the Study Area

Soil Series Symbol	Soil Series Description	Soil Series Setting (Landform)	Farmland Classification	Soil Limitations				Hydrologic Soil Group	Hydric Rating
				Depth to Restrictive Features		Natural Drainage Class	Hydric Rating Percentage (%)[2]		
				Depth to Any Soil Restrictive Layer (inches)	Depth to Water Table (inches)				
Cd	Canandaigua mucky silt loam	Depressions	Farmland of statewide importance	>80	0	Poorly drained	95	C/D	Hydric
HuC	Hudson Silt Loam, 6-12 percent slopes	Lake plains	Farmland of statewide importance	>80	18-24	Moderately well drained	0	C/D	Non-hydric
RhB	Rhinebeck silt loam, 2 to 6 percent slopes	Lake plains	Prime farmland if drained	>80	6-18	Somewhat poorly drained	5	C/D	Predominantly non-hydric

Notes:

1. Soils data obtained from the following: Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed October 2025.
2. Criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.
3. The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:
   a. All Histels except for Folistels, and Histosols except for Folists.
   b. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
      i. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
      ii. Show evidence that the soil meets the definition of a hydric soil
   c. Soils that are frequently ponded for long or very long duration during the growing season.
      i. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
      ii. Show evidence that the soil meets the definition of a hydric soil.
   d. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
      i. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
      ii. Show evidence that the soil meets the definition of a hydric soil

APPENDIX F
Résumés of Personnel Conducting Delineations

Lyndon Watkins

Ecologist III

As an Ecologist with RES. Lyndon routinely performs Waters of the U.S. (WOUS) delineations and perennial stream assessments in Virginia, as well as stream and wetland mitigation monitoring and reporting. Lyndon has experience writing and submitting reports to local, state, and federal environmental agencies, such as the Virginia Department of Environmental Quality (DEQ) and the US Army Corps of Engineers (USACE). Lyndon is a Fisheries professional with four years of applied Wetland Delineation experience and 12 years in the Natural Resources/Environmental Conservation field

AT A GLANCE

Contact
lwatkins@res.us | 518.321.4850

Years' Experience
12 years

Education

- BS, Bachelor's in Fisheries and Aquaculture

Professional Certifications and Training

- First Aid / CPR
- NAACC Certified Observer
- Open Water Diving Certificate

SELECT WORK EXPERIENCE

New York State Department of Environmental Conservation

Served as a Long Term Seasonal Fish and Wildlife Technician. Experience included aiding fisheries surveys including boat and backpack electrofishing, Gillnet, trap net, and angling; assisting in fall egg take of brook trout and lake trout; aged scale and spine samples; performing wetland delineations in accordance with state and federal guidelines; utilizing GIS to create wetland maps and propose wetland map amendments; facilitating pre-application meetings for state environmental permitting with town and county governments; enforcing regulatory actions for Art. 15 and Art. 24 of the Environmental Conservation Law (ECL); utilizing NAACC to inform regulatory actions on protected streams (Art. 15) to local and state municipalities; and executing regulatory compliance inspections.

State University of New York at Cobleskill

Served as an Instructional Support Assistant and was responsible for maintaining field equipment and preparing for field classwork; transporting gear and students to labs and assisting in lab instruction; aiding in the outside instruction of students and supervising student's independent research projects; and instructing students on proper sampling methods and techniques.

New York Aquarium

Served as an Aquarist, maintaining proper care and health of all mechanical systems and live organisms within assigned areas including up to five large saltwater enclosures, both tropical and temperate, and 7 tropical freshwater enclosures. Also spearheaded the breeding program for five endangered African fish species and coral propagation; maintained live food cultures of zooplankton, brine shrimp, and mysid shrimp for larval fish rearing; and supervised volunteers and aided school outreach programs.

Washington Department of Fish and Wildlife

Fisheries Technician responsible for the collection of biological data on Pacific Salmon and Steelhead in the Lower-Mid Columbia River System, CWT (coded wire tags) scale samples. Also observed Commercial Gillnet Fisherman collecting counts of catch and recording data such as drift times, GPS locations and gear specifications; and independently completed stream surveys on foot and by boat on spawning tributaries, collecting basic water quality parameters, completed redd counts, collected biological data and CWTs of all carcasses found.

Pacific States Marine Fisheries Commission

Dam Angler/ Station Attendant responsible for angling for the control of the Northern Pikeminnow in The Dalles Region of the Columbia River and manning a creel station to collect fish from sport reward anglers, hand out payment vouchers and collect biological data.

State University of New York at Cobleskill Fish Hatchery

Served as Assistant Manager maintaining proper care and health of all mechanical systems and live organisms in SUNY Cobleskill's 40,000-gallon cold water hatchery containing 4 species of trout and warm water species such as tilapia, african cichlids, and shellfish. Also managed and trained staff regarding daily operation, maintenance, and troubleshooting of all life support systems; taught and supervised hatchery lab sections on hatchery maintenance, disease, and spawning; conducted daily water quality testing at outlet to ensure released water meets all standards according to SPDES permit.

Jessica Hefferon

Ecologist I

As an Ecologist with RES. Jessica routinely performs Waters of the U.S. (WOTUS) delineations and perennial stream assessments in New York, as well as stream and wetland mitigation monitoring and reporting. Jessica has experience writing and submitting reports to local, state, and federal environmental agencies, such as the New York State Department of Environmental Conservation (NYSDEC) and the US Army Corps of Engineers (USACE). Jessica is an Environmental professional with two years of applied Wetland Delineation experience and 5 years in the Natural Resources/Environmental Conservation field.

AT A GLANCE.

Contact
jhefferon@res.us | 585.802.8154

Years of Experience
5 years

Education
- Wildlife Management, BT, SUNY Cobleskill, 2019

SELECT WORK EXPERIENCE

HUNT-EAS

Served as an Environmental Scientist. Experience included performing wetland delineations in accordance with state and federal guidelines; utilizing GIS to create wetland maps, threatened and endangered species surveys and correspondence with state and federal agencies, jurisdictional determination and permitting applications with state and federal agencies, and Phase I and II reports.

Washington Conservation Corps.

Served as an Assistant Supervisor on the field crew out of Yakima, WA. The field crew focuses on stream restoration within the Yakima Vally. Experience included native tree and shrub planting and maintenance, invasive species removal and management, Firewise and fire prevention practices, post assisted log structures, and stream bank improvement. The job required the use and skill of power tools such as chainsaws, woodchippers and brush cutters. Additionally, as assistant supervisor, Jessica gained leadership and organizational skills.

Louisiana State University

Served as wood duck technician. Experience duck identification skills, PIT tagging, web tagging, egg handling and measurements, handling of hens and ducklings, wood duck box maintenance, aging the hens, and data collection and organization. Additionally, this job required to have the skills to trailer and operate a boat, UTV, and ATV.

Bald Head Island Conservancy

Served as a Sea Turtle Intern. Experience included sea turtle identification skills as well as identifying individual species, PIT tagging, flipper tagging, egg handling, carapace measurements, predator control, public education, and data collection and organization. This job also involved being able to take tissue biopsy samples from each individual nesting sea turtle to be processed in the laboratory. The job involved working through the night both during nesting season as well as hatchling season. Public education included leading a lesson on Loggerhead sea turtles to 30 individuals, as well as larger events open to anyone that could reach crowds of several hundred.