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PHASE III
ENVIRONMENTAL MANAGEMENT & CONSTRUCTION PLAN

PROPOSED COMPREHENSIVE WETLAND MITIGATION PLAN IN SUPPORT OF THE SPIER FALLS-ROTTERDAM NEW 115KV TRANSMISSION PROJECT (CASE 10-T-0080)

Project Location:

Towns of Rotterdam, Glenville, Charlton, Ballston,
Milton, Greenfield, Corinth, and Moreau
Schenectady and Saratoga Counties
State of New York

Owner:

Niagara Mohawk Power Corporation
(d/b/a National Grid)
300 Erie Blvd. West
Syracuse, NY 13202

Prepared by:

TRC
10 Maxwell Drive, Suite 200
Clifton Park, NY 12065

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1.0 Introduction

Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid") has prepared this *Proposed Comprehensive Wetland Mitigation Plan* as the *Phase III Environmental Management and Construction Plan* ("Phase III EM&CP") pursuant to the *Supplemental Environmental Management and Construction Plan*, dated July 2011 ("Supplemental EM&CP") in connection with the Spier Falls – Rotterdam New 115kV Transmission Project (the "Project").

The Project, located in Saratoga and Schenectady Counties, is comprised of the following three components: (i) construction of a new, single-circuit 115kV transmission line (the "New Line"); (ii) busing together National Grid's existing Spier Falls - to - Rotterdam Lines 1 and 2; and (iii) rebuilding/reconductoring 4.2 miles of National Grid's existing Ballston Tap Line 2. The Project will be located in the towns of Moreau, Corinth, Greenfield, Milton, Ballston, and Charlton in Saratoga County and the towns of Glenville and Rotterdam in Schenectady County.

The New Line will be predominately built along an existing National Grid right-of-way ("ROW") currently shared by Lines 1 and 2. Nonetheless, in order to construct, operate, and maintain the Project, National Grid is acquiring additional permanent property rights ("Expanded ROW"), as described in the Project's Supplemental EM&CP. Tall-growing tree species are being removed from the Expanded ROW for construction, and that strip will be maintained as a border zone after construction is complete, in accordance with National Grid's Public Service Commission ("PSC")-approved Transmission Right-of-Way Management Program (revised May 2010) adopted pursuant to 16 NYCRR Part 84 ("TROWMP").

National Grid developed a *Wetland Mitigation Plan*, dated July 2011 ("Mitigation Plan") as part of its Supplemental EM&CP for the Project. The Mitigation Plan described the wetland impacts associated with the Project, identified the Project's wetland mitigation goals and objectives, and identified the components of the *Proposed Comprehensive Wetland Mitigation Plan* to be submitted to the U.S. Army Corps of Engineers ("USACE"), the New York State Department of

Environmental Conservation ("NYSDEC"), and the New York State Department of Public Service ("NYSDPS"). This *Proposed Comprehensive Wetland Mitigation Plan* supersedes the Mitigation Plan and includes site-specific details including a wetland mitigation site work plan, site protection information, and a monitoring protocol.

2.0 Avoidance and Minimization Measures

All wetland and deepwater habitats in the Project area potentially regulated by the USACE under Section 404 of the Clean Water Act (CWA) and subject to the substantive requirements of Articles 15 and 24 of the Environmental Conservation Law (ECL) were documented in a *Wetland Delineation Report, Spier Falls-Rotterdam New 115kV Transmission Project, Saratoga and Schenectady Counties, New York* (TRC, 2010). This wetland delineation report was submitted to the USACE, NYSDEC, and NYSDPS in September 2010.

National Grid has avoided, to the extent possible, adverse impacts to aquatic resources, including wetlands, streams, and NYSDEC 100-foot adjacent areas by locating the proposed Project transmission facilities primarily within the existing transmission ROWs. Permanent impacts to wetlands associated with the placement of structures have been minimized to the extent practicable by locating structures outside of wetlands where the alternative of spanning the wetlands exists.

National Grid has designed access routes, workspaces, and laydown areas outside of wetlands and 100-foot adjacent areas where possible. Numerous "No Equipment Access" areas have been designated along the Project ROW to avoid impacts to aquatic resources.

Impacts to wetland habitats and aquatic resources are being minimized during Project construction by implementing the protection measures outlined in Section 3.0 of Appendix F of the Supplemental EM&CP for the Project, including the use of swamp mats, tracked equipment, and low-ground-pressure vehicles. Swamp mats are being cleaned of invasive species prior to placement in a wetland in compliance with the Invasive Species Control Procedures identified in

the Supplemental EM&CP, and they are being removed in reverse order of placement as soon as practicable once construction for a given section is complete. To the extent possible, work activities in wetlands have been scheduled during dry or frozen periods of the year to facilitate access and construction, and to reduce the potential for erosion and sedimentation in wetlands and streams.

To further minimize impacts to on-site and adjacent surface and groundwater resources, a Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the Project pursuant to NYSDEC GP Number GP-0-10-001. Implementation of the SWPPP ensures that indirect impacts to surface and groundwater resources located adjacent to and downstream of the Project are minimized to the extent possible.

Impacts to wetland habitats and aquatic resources are being avoided and minimized during clearing activities by (1) limiting the use of clear cutting (Type I clearing) woody species to only those areas proposed for workspaces and access, (2) using selective clearing (Type II) or danger tree removal, where possible, and (3) implementing the Best Management Practices ("BMPs") described in Section 2.4.4 of Appendix F of the Supplemental EM&CP.

3.0 Wetland Impacts

Impacts to wetlands and 100-foot adjacent areas have been avoided to the extent practicable by selecting and designing structure locations, access routes, and workspaces outside of wetlands and 100-foot adjacent areas where possible. However, the Project will still result in unavoidable impacts to wetland resource areas. Activities that will occur within regulated wetlands or adjacent areas include vegetation clearing for temporary workspace, access routes, and vegetation management easement areas; grading of workspaces and access routes as needed for safe construction practices; matting of access roads and workspaces within wetlands; removal of existing structures; and the installation of new structures.

3.1 Temporary Fill

Approximately 30 acres of wetlands will be temporarily matted for access routes and temporary work spaces. Following construction, swamp mats will be removed in reverse order of placement as soon as practicable. Due to the limited disturbance associated with the use of swamp mats, matted wetland areas are expected to revegetate naturally following construction. Monitoring of matted wetland areas and additional restoration measures are described in Section 5.

3.2 Permanent Fill

Of the approximately 315 structures planned to support the New Line, seventy-four (74) will be unavoidably located in Federal wetlands; forty-seven (47) of these also are located in NYSDEC wetlands. The placement of new structures in wetlands will result in approximately 0.05 acres of permanent fill in Federal wetlands, with approximately 0.03 acres of this permanent fill occurring in NYSDEC wetlands. Permanent wetland impacts are summarized in Table C-1 in Appendix C of the Supplemental EM&CP.

3.3 Wetland Conversion within Expanded ROW

Selective clearing of tall-growing tree species that are incompatible with electric transmission lines will occur within the Expanded ROW. Some of this selective tree clearing will occur within forested wetlands, resulting in the conversion of forested wetlands to scrub-shrub/emergent wetlands. Approximately 10.4 acres of Federal wetlands will likely be converted from forested wetlands to scrub-shrub/emergent wetlands, and of that total, approximately 6.4 acres would meet the substantive requirements of NYSDEC wetlands. Individual unavoidable wetland impacts from clearing are summarized in Table C-1 in Appendix C of the Supplemental EM&CP.

Although selective clearing in forested wetlands will require removal of tall-growing tree species, woody shrub and emergent vegetation will be retained as much as practicable during clearing operations. The natural development of such low-growing vegetation will be subsequently fostered by the cyclical and selective removal of any invading specimens of tall-growing species in these cleared areas, and vegetation in these areas is expected to develop into the same types and densities as the shrub and emergent wetland vegetation that occurs on the existing and maintained ROW. Stumps and root masses from tall-growing trees will be left in place to maintain soil stability and prevent erosion.

3.4 Wetland Conversion within Fee-Owned ROW

In addition to the selective clearing in the Expanded ROW, tall-growing tree species within the existing fee-owned ROW that are incompatible with electric transmission facilities will be removed. This selective clearing will be in accordance with the National Grid TROWMP, and could occur as part of routine vegetation maintenance. However, this maintenance clearing activity has been incorporated into this Project in order to minimize impacts on environmental resources on the existing 115kV ROW. Due to this selective clearing on the fee-owned ROW, an additional 7.4 acres of Federal wetlands, of which 2.5 acres would be subject to the substantive requirements of ECL Articles 15 and 24, will be converted from forested wetlands to scrub-shrub/emergent wetlands.

3.5 Functions and Values

Forested wetlands in the Project ROW perform a range of functions, including groundwater recharge/discharge, floodflow alteration, sediment retention, nutrient removal/pollution control, sediment stabilization, and wildlife habitat and provide values such as timber production (Kulser, 2006). The limited amount of permanent fill in wetlands that will result from the Project is not anticipated to adversely impact the functions and values of the affected wetlands.

The selective clearing activities will not result in a change in wetland hydrology, therefore the groundwater recharge/discharge function of the impacted wetlands will not be adversely affected. By retaining low-growing vegetation, the selective clearing activities will not adversely affect the floodflow alteration, sediment retention, nutrient removal/pollution control, and sediment stabilization functions of the impacted wetlands. In addition, stumps and root masses from tall-growing trees will be left in place to maintain soil stability and prevent erosion.

Although the conversion of forested wetlands to scrub shrub or emergent wetlands may benefit some wildlife species (e.g., shrubland breeding and migratory bird species), there will be a net loss of forested wetland habitat.

4.0 Wetland Mitigation Goals and Objectives

Wetland mitigation goals and objectives have been identified to offset the unavoidable wetland impacts within the Expanded ROW. Per consultations with the NYSDEC and USACE concerning development of a wetland mitigation plan for the Project and Certificate Conditions #89, #90, and #93e, the following mitigation goals and objectives apply to this plan:

- Restore temporary access routes and work areas to pre-construction conditions. Where DPS Staff or NYSDEC determine that restoration was not adequate because temporary road mats remaining in place for four months or more during the growing season caused more extensive or significant impacts, compensatory mitigation, such as vegetation plantings or addressing invasive species in wetlands, will be provided at the impacted wetland sites.

- Provide 1:1 preservation and permanent protection of 10.4 acres of wetlands to offset the wetland conversion identified in Section 3.3

- Give preference to mitigation sites within the watershed of Kayaderosseras Creek, a NYSDEC-protected trout stream and Nationwide Rivers Inventory river

- Provide wetland enhancements within the preserved 10.4 acres of wetlands for at least 6.4 acres of the mitigation site(s)

- Enhance the wildlife habitat within the selected wetland mitigation site(s)

The mitigation discussed above provides the necessary mitigation required for temporary matting and permanent fill in Federal and NYSDEC wetlands associated with the Project.

Performance standards for the proposed wetland mitigation work plan are described in Section 6.3.4.

5.0 Mitigation for Temporary Impacts

Due to the limited disturbance associated with the temporary use of swamp mats for access paths and structure work areas, matted wetland areas are expected to revegetate naturally following construction and restoration. National Grid will monitor areas where wetland matting or gravel construction entrances remained in place for four months or more during the growing season. These areas will be monitored for at least two growing seasons following removal of the mats or gravel. If vegetative cover does not reach at least 85% after two growing seasons, the disturbed area will be seeded with a wetland seed mix to supplement natural regeneration. The area will continue to be monitored until vegetative cover reaches 85%.

National Grid will provide a yearly report to DPS and NYSDEC on the status of restoration of areas where mats or gravel construction entrances remained in place for four months or more during the growing season. Where DPS or NYSDEC determine that restoration was not adequate because temporary road mats or gravel construction entrances remaining in place for

four months or more during the growing season caused more extensive or significant impacts, National Grid will consult with DPS and NYSDEC and will develop a site-specific mitigation plan to address any loss of wetland functions and values. National Grid's plan will propose site-specific mitigation measures, such as additional plantings to provide food or habitat for wildlife or invasive species management activities, to restore lost functions and values at the impacted wetland sites. National Grid's report on temporarily disturbed wetland areas may be combined with the monitoring reports for wetland conversion mitigation (see Section 6.5) when practicable.

No gravel roads are proposed within wetlands. If any gravel roads are deemed necessary during construction, the change will be reported to DPS Staff pursuant to Ordering Clause 27. Any temporary gravel roads within wetlands will be restored to pre-construction conditions. These areas will be monitored using the same procedure described above for matted areas.

6.0 Mitigation for Wetland Conversion

6.1 Wetland Mitigation Site Selection

Because the Project ROW has been, and will continue to be, managed for compatibility with electric transmission lines, and no extra space is available within the Project ROW, wetland-mitigation-related tree-plantings on the existing fee-owned ROW is not feasible. To identify potential mitigation sites either immediately adjacent to the ROW or otherwise within the Kayaderosseras Creek Watershed vicinity, National Grid performed a detailed review of aerial photography and evaluated each potential site with respect to the following criteria:

- Whether it offers a high probability of meeting wetland criteria (adjacent to field-delineated wetlands, adjacent to or within mapped NYSDEC non-forested freshwater wetlands)

- Whether it appears to be non-forested or degraded forested habitat

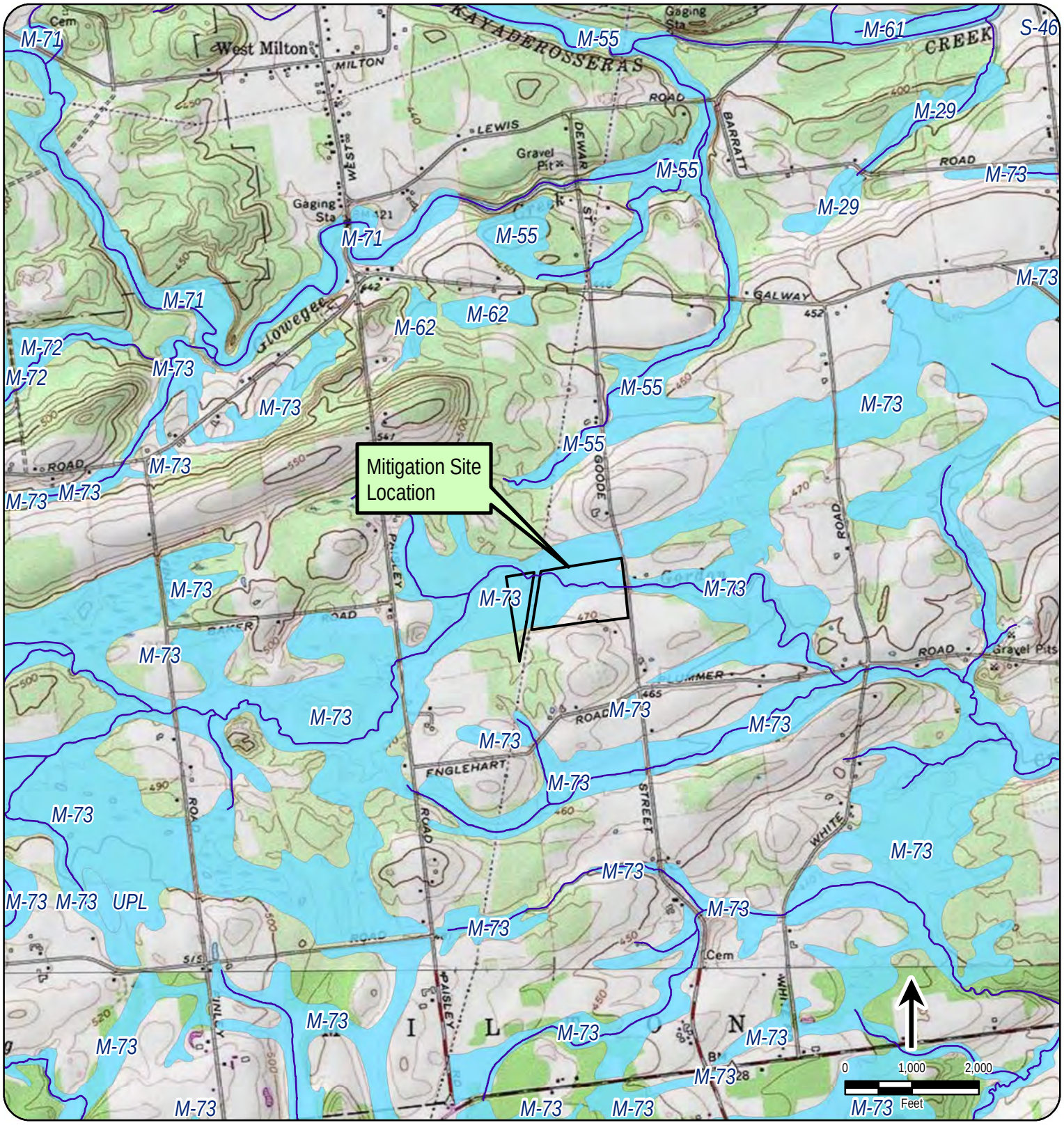
- Whether it appears to be old field, recently logged, abandoned farmland, or inactive pastureland

The potential mitigation sites identified from aerial photography were then field reviewed from the adjacent ROW and/or public roadways. Five (5) sites that appeared to have the greatest potential to provide suitable conditions for meeting the goals and objectives of the Mitigation Plan were identified. These candidate sites were chosen based on the following criteria: proximity to the Project ROW; location within the Kayaderosseras Creek watershed; likelihood of successful wetland tree species plant survival; and the opportunity to improve existing degraded wetlands.

Final site selection was determined by on-site field review, landowner negotiations, and consultations with NYSDEC, NYSDPS, and USACE. Following landowner discussions and review of sites #1 and #4 with the agencies, site #4 has been identified as the proposed wetland mitigation site.

6.2 Selected Wetland Mitigation Site

The selected proposed wetland mitigation site is located at 1119 Goode Rd in Milton, Saratoga County, New York (Figures 1 and 2). The site is located on a portion of a 32.5-acre residential parcel owned by Paul J. and Joan H. Constantine. The parcel is bounded by Goode Road to the east. National Grid's ROW traverses the western portion of the property. The parcel is located in a rural, residential area. Surrounding land uses include residential, forested, and agricultural. The property is located in Consolidated Agricultural District 2 (SARA002) and was formerly used for agriculture.



Legend

- Constantine Parcel
- DEC Wetlands
- DEC Streams

DEC Wetland ID

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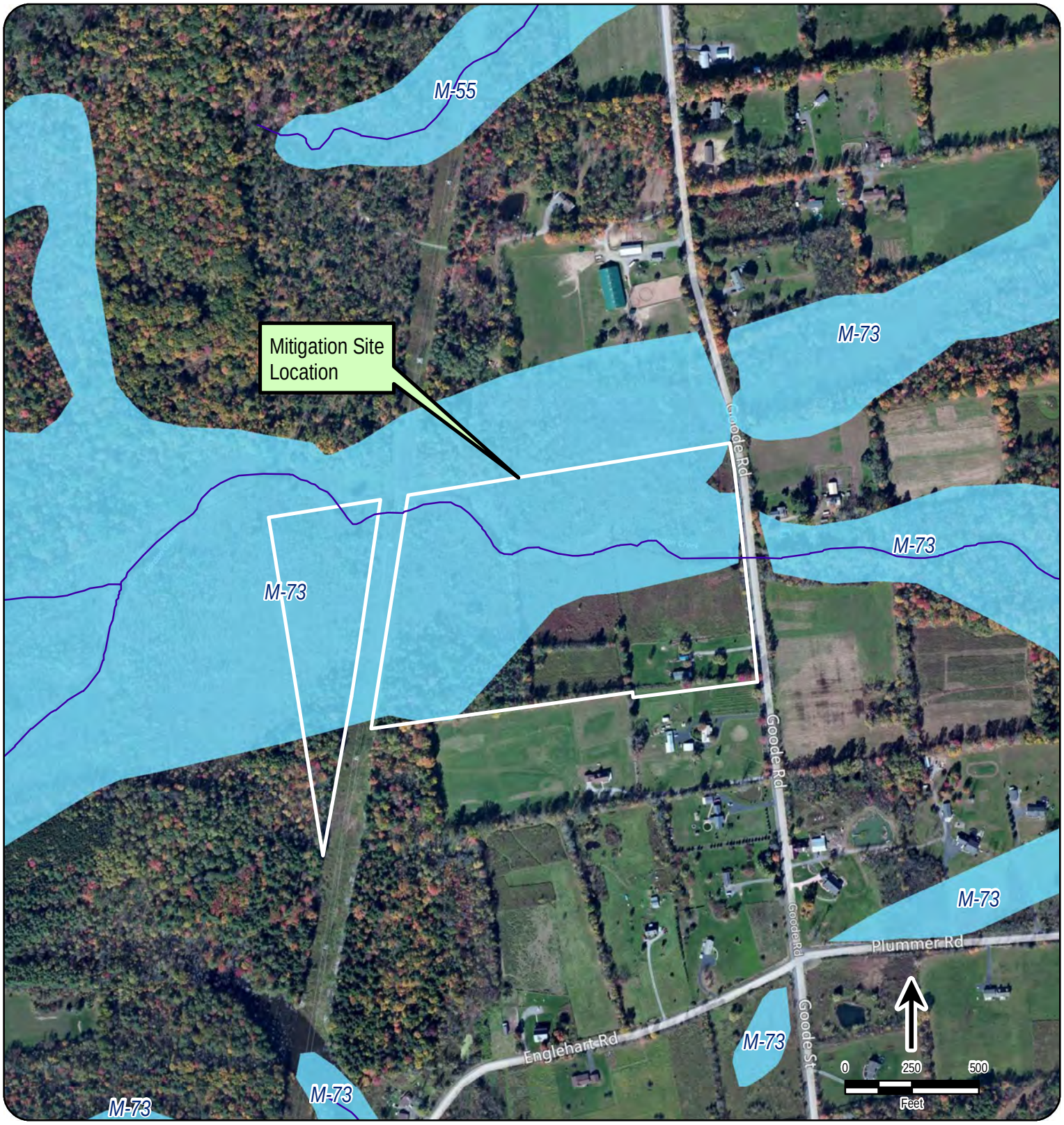
Spiers Falls-Rotterdam Project

Figure 1

General Location Map - USGS
Constantine Mitigation Parcel
Milton, NY

Map Created by TRC on: 4/5/2012



Legend

- Constantine Parcel
- DEC Wetlands
- DEC Streams

DEC Wetland ID

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Spiers Falls-Rotterdam Project

Figure 2

General Location Map - Ortho

Constantine Mitigation Parcel

Milton, NY

Map Created by TRC on: 4/5/2012

A 13.8-acre section on the eastern portion of the Constantine property is proposed as the mitigation site (Figure 3). This area of the site was chosen in conjunction with NYSDEC staff based on its suitability for wetland tree planting and invasive species management activities.

6.2.1 Watershed

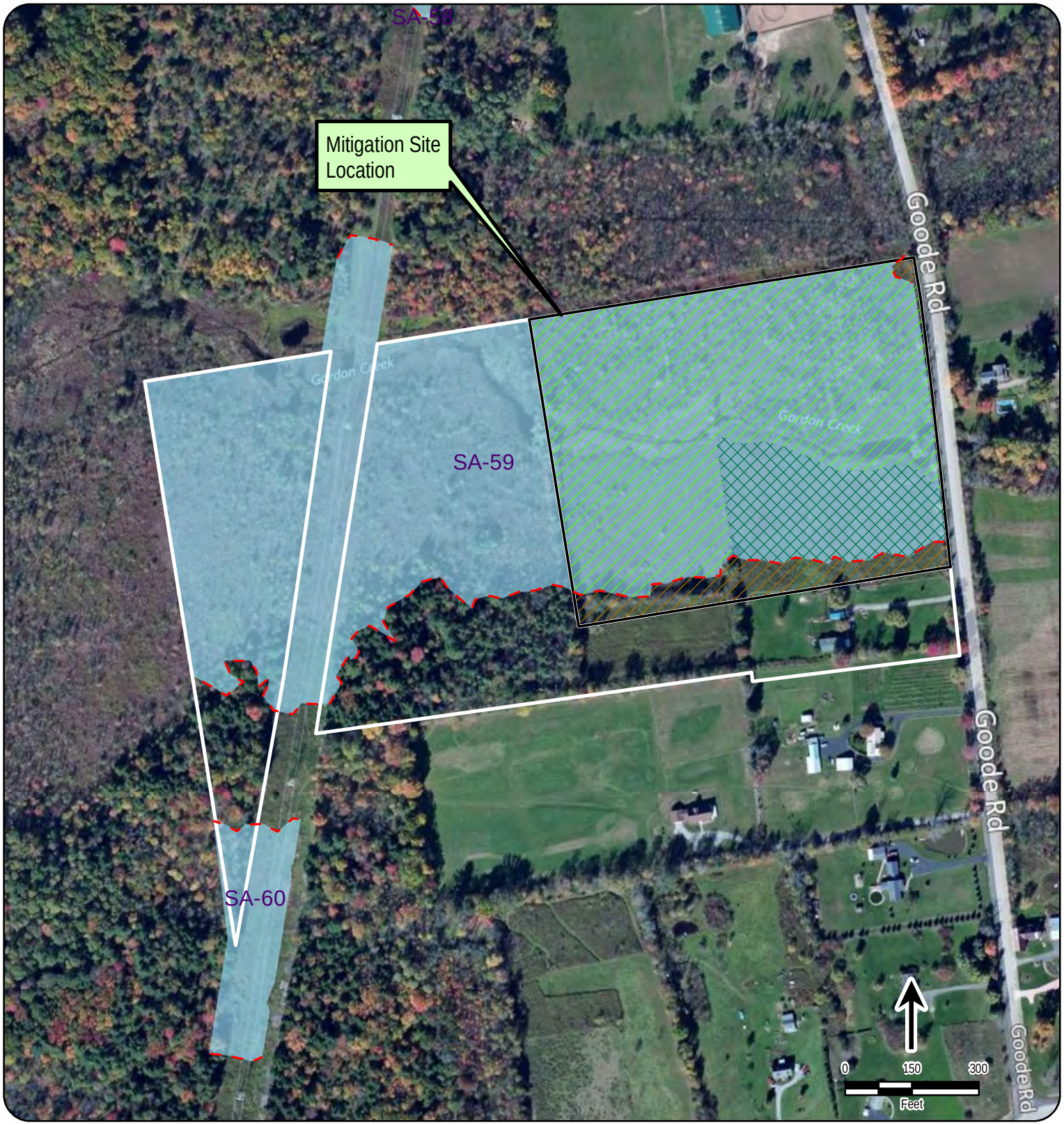
The proposed wetland mitigation site is located in the Lower Kayaderosseras Creek Watershed (HUC ID # 020200030406) (Figure 4).

6.2.2 Wetland Resource Areas

National Grid (and its consultant TRC) assessed the proposed wetland mitigation site for the presence of federal and state jurisdictional wetlands using the *New York State Freshwater Wetlands Delineation Manual* (1995) and the Federal Routine Determination Method presented in the *Corps of Engineers Wetlands Delineation Manual* (USACE, 1987) and the *Interim Regional Supplement for the Northcentral and Northeast Region* (USACE, 2009). Photographs of the wetland are included as Attachment A and wetland delineation data forms are included as Attachment B.

An approximately 25-acre wetland was delineated on the Constantine property (Figure 3). Twelve and a half (12.5) acres of the delineated wetland are located within the proposed wetland mitigation site. The wetland is part of a NYSDEC Class I wetland designated as M-73 and consists of open water (POW), emergent marsh (PEM), scrub-shrub (PSS), and forested (PFO) wetland components (Figure 5) (Cowardin et. al., 1979).

Approximately 4.5 acres of emergent marsh are found on the proposed wetland mitigation site. Common plant species in the emergent marsh include purple loosestrife (*Lythrum salicaria*), goldenrods (*Solidago* spp.), cattails (*Typha* spp.), joe-pye weed (*Eupatorium maculatum*), sensitive fern (*Onoclea sensibilis*), and reed canary grass (*Phalaris arundinacea*).



Legend

- Delineated Wetland Boundary
- Proposed Wetland Preservation/Enhancement Area -10.1 ac.
- Proposed Upland Preservation Area - 1.3 ac
- Proposed Wetland Restoration/Planting Area - 2.4 ac.
- Proposed Mitigation Area - 13.8 ac
- Constantine Parcel
- Wetland SFR-Wetland ID

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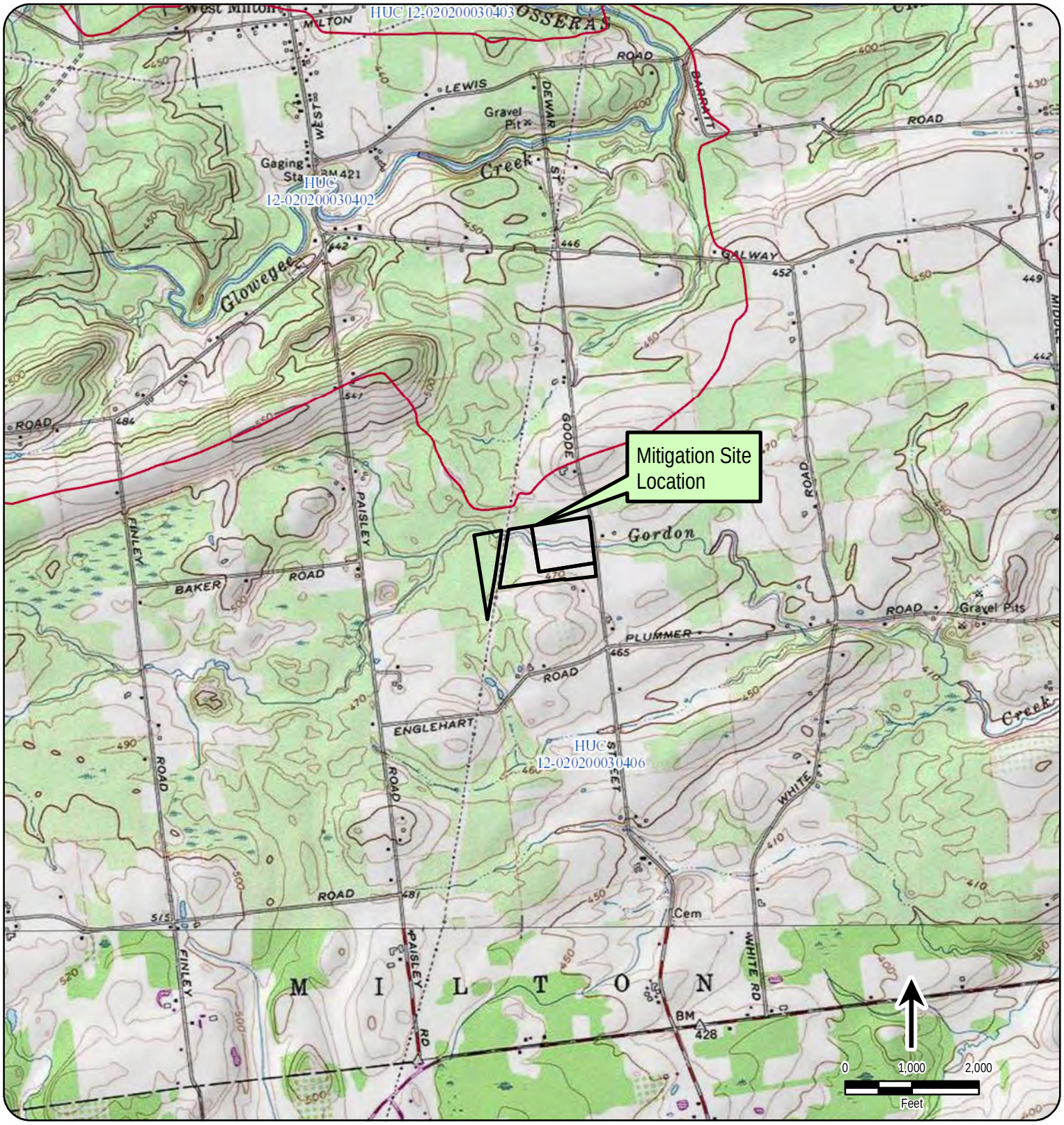
Figure 3

Proposed Mitigation

Constantine Mitigation Parcel

Milton, NY

Map Created by TRC on: 4/5/2012



Legend

- Constantine Parcel
- Subwatersheds

HUC 12 Watershed Information courtesy of USGS

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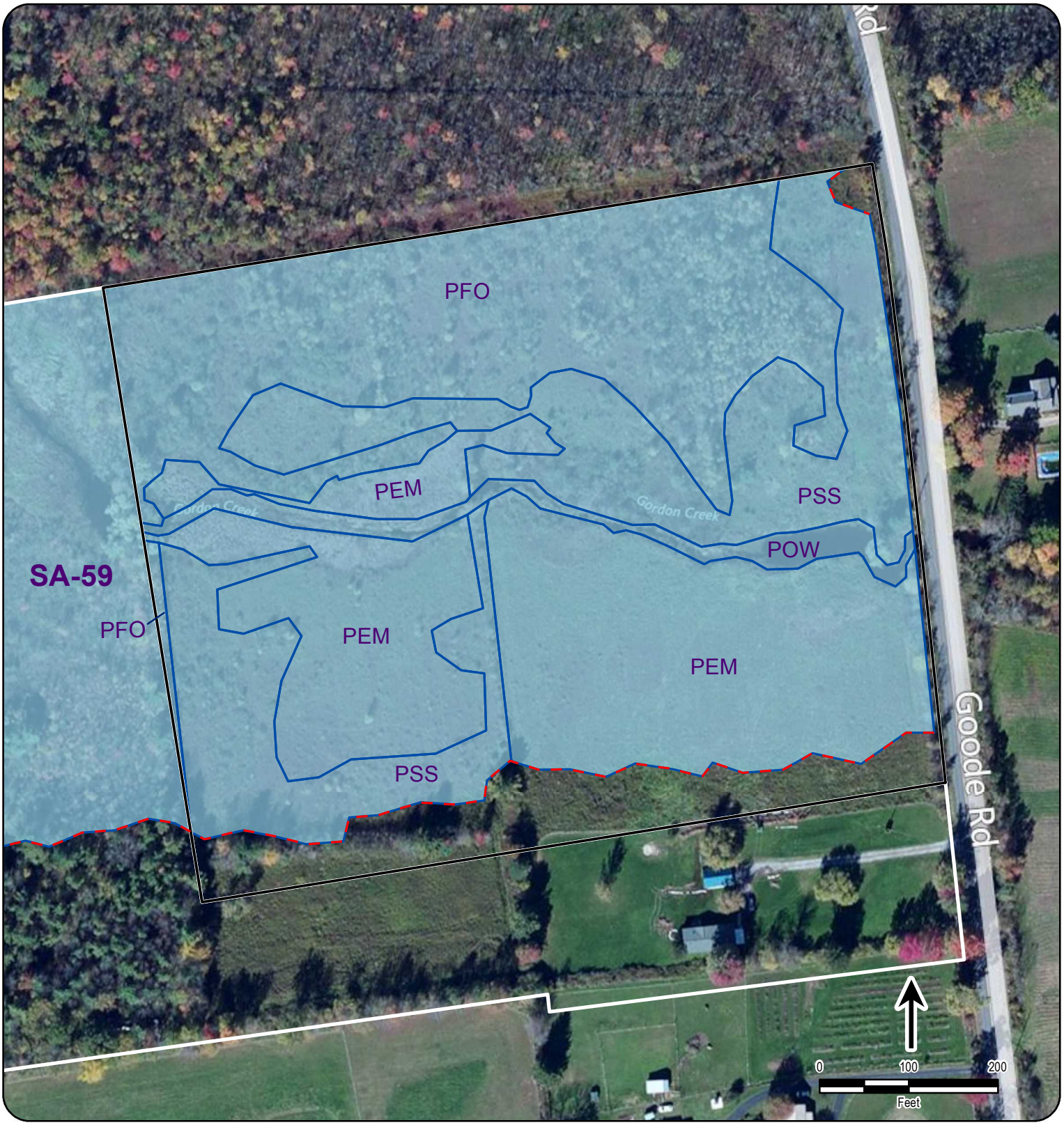
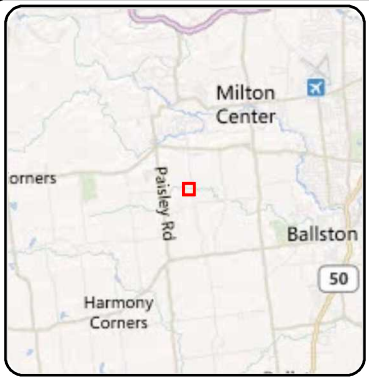
Spiers Falls-Rotterdam Project

Figure 4

HUC 12 Watershed Map
Constantine Mitigation Parcel
Milton, NY

Map Created by TRC on: 4/4/2012





Legend

- Delineated Wetland Boundary
- Proposed Mitigation Area - 13.8 ac
- Constantine Parcel
- Wetland Community Boundary
- Wetland

Wetland Community Codes:

PEM: Palustrine Emergent Marsh
PSS: Palustrine Scrub-Shrub
PFO: Palustrine Forested
POW: Palustrine Open-Water

SFR-Wetland ID

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Figure 5

Wetland Communities

Constantine Mitigation Parcel

Milton, NY

Map Created by TRC on: 4/5/2012

The scrub-shrub component of the wetland is classified as a broad-leaved deciduous scrub-shrub community. Approximately 3.5 acres of scrub-shrub wetland occur on the proposed wetland mitigation site. Vegetation within the scrub-shrub component includes silky dogwood (*Cornus ammomum*), willows (*Salix* spp.), winterberry (*Ilex verticillata*), purple loosestrife (*Lythrum salicaria*), goldenrods (*Solidago* spp.), joe-pye weed (*Eupatorium maculatum*), sensitive fern (*Onoclea sensibilis*), and reed canary grass (*Phalaris arundinacea*).

Approximately 4.1 acres of forested wetland occur on the proposed wetland mitigation site. Vegetation occurring within the broad-leaved deciduous forested wetland includes American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanicum*), red maple (*Acer rubrum*), American hornbeam (*Carpinus caroliniana*), gray birch (*Betula populifolia*), sensitive fern, and cinnamon fern (*Osmunda cinnamomea*). The tree canopy provides dense cover with few plants in the understory.

The remaining 0.4 acres of wetland on the proposed wetland mitigation site consists of open water, i.e., Gordon Creek (see Section 6.2.3).

6.2.3 Existing Hydrology

The proposed wetland mitigation site is located adjacent to Gordon Creek, which flows from west to east across the property. Gordon Creek is a tributary to the Kayaderosseras Creek and is designated by NYSDEC as a Class C stream, which is defined as waters supporting fisheries and suitable for non-contact activities. The banks of the stream are generally gradual and become more vertical as the stream approaches Goode Road.

The proposed wetland mitigation site is seasonally flooded in areas directly adjacent to Gordon Creek. The remaining wetland area is saturated to the surface for extended periods during the growing season. At the time of delineation, the water table was located at 6 inches in the wetland data plot located in the proposed planting area (refer to data forms in Attachment B).

6.2.4 Existing Soils

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) (formerly the Soil Conservation Service) soil map units for the proposed wetland mitigation site are provided on Figure 6. Within the proposed wetland mitigation site, four (4) different soil types have been mapped by the USDA NRCS. According to the *National List of Hydric Soils* prepared by the USDA NRCS (2011a), two (2) of the soils mapped within the proposed wetland mitigation site are classified as hydric soils. Hydric soils are defined as soils "that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil" (Federal Register, 1994). Table 6-1 summarizes the soil series on the proposed wetland mitigation site and lists the soils that are classified as hydric, or associated with wetland hydrology.

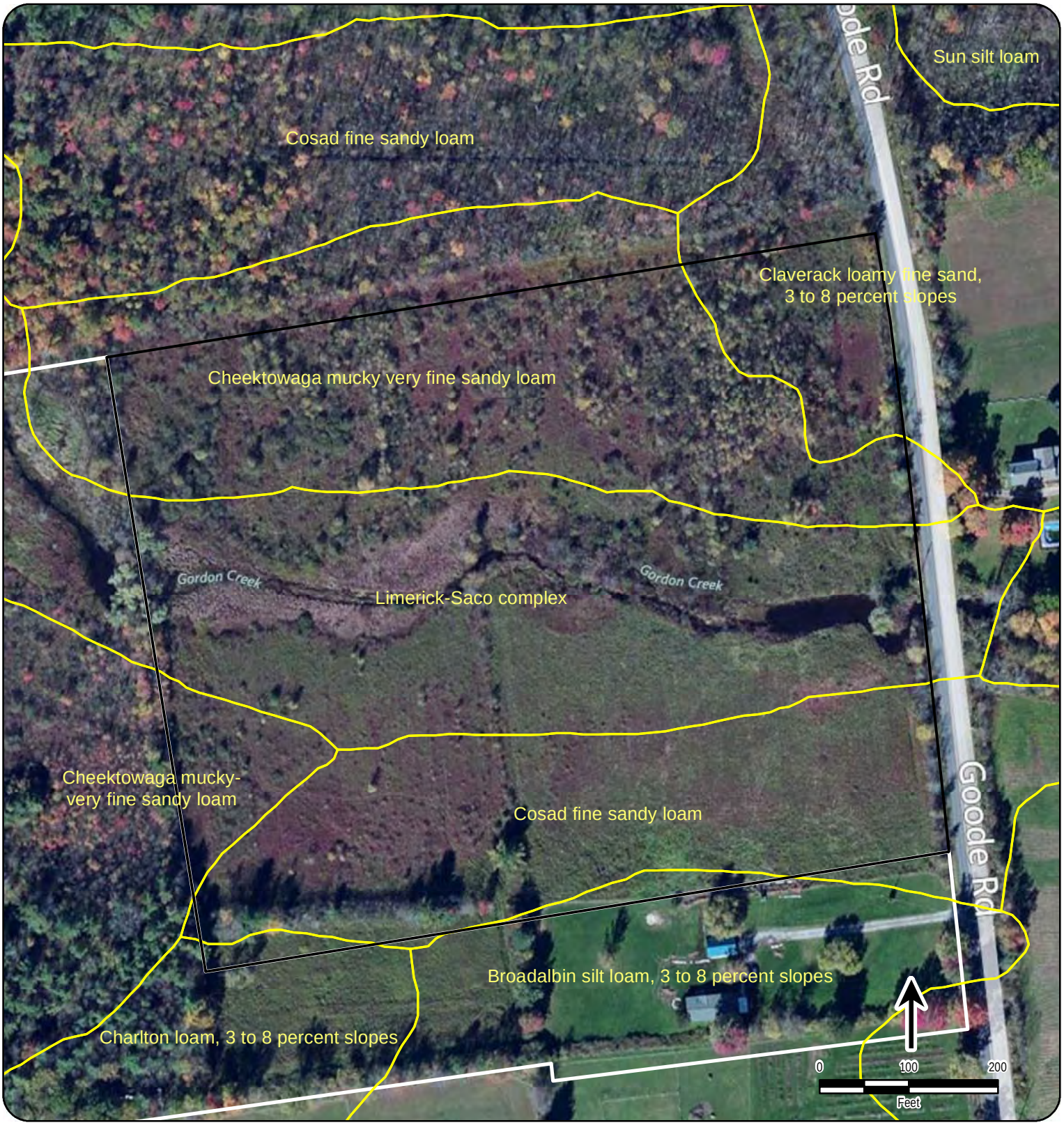
Table 6-1 Soil Series Summary

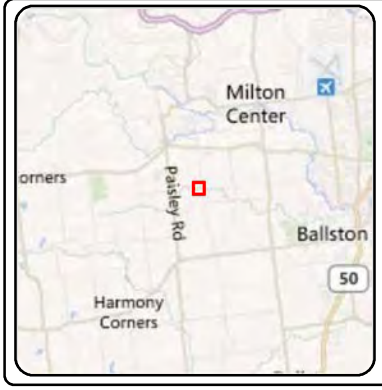
Soil Name	Symbol	Slopes	Hydric (y/n)	Drainage Class
Cheektowaga mucky very fine sandy loam	Cg	0-3%	Y	Very Poorly Drained
Claverack loamy fine sand	ClB	3-8%	N	Moderately Well Drained
Cosad fine sandy loam	Cs	0-3%	N	Somewhat Poorly Drained
Limerick-Saco complex	Lm	0-3%	Y	Poorly Drained

The following are the abbreviated descriptions of each of the relevant soil types taken from the county soil survey (USDA NRCS, 2004).

Cheektowaga mucky very fine sandy loam

This soil type formed in sandy deposits over clayey sediments and consists of very deep, nearly level, very poorly drained soils found in depressions on old glacial lake plains. The surface layer





Legend

- Proposed Mitigation Area - 13.8 ac
- Constantine Parcel
- USDA NRCS Soil Series Boundary

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Spiers Falls-Rotterdam Project

Figure 6

USDA NRCS Soils Map
Constantine Mitigation Parcel
Milton, NY

Map Created by TRC on: 4/5/2012

is typically a very dark grayish brown, mucky very fine sandy loam extending for approximately 12 inches. The subsurface layer and subsoil are typically mottled, grayish brown with a loamy fine sand texture. The substratum begins around 21 inches and is typically mottled, gray or yellowish brown with silty clay to clay texture. Permeability is rapid in the upper sandy layers and slow or very slow in the clayey substratum. The water table can be found between 0.5 feet above the surface and 0.5 feet below the surface.

Claverack loamy fine sand

This soil type formed in sandy deposits over clayey sediments and consists of sandy deposits over clayey sediments. The surface layer is typically very dark grayish brown with a loamy fine sand texture extending for approximately 8 inches. The subsoil consists of mottled, brown sand. The substratum is typically mottled and brown with a silt loam to clay texture. The substratum begins around 27 inches. Permeability of the soil is rapid in the sandy upper part and slow or very slow below. The water table is typically found at 1.5 to 2 feet.

Cosad fine sandy loam

This soil type formed in sandy deposits over clayey lacustrine deposits and consists of very deep, nearly level, somewhat poorly drained soils found in slight depressions on lake plains. The surface layer is typically a mottled, very dark grayish brown loamy fine sand extending for approximately 8 inches. The subsoil is a mottled, yellowish brown loamy fine sand. The substratum is typically a dark yellowish brown clay that begins around 27 inches from the surface. Permeability is rapid in the sandy upper part and slow to very slow in the substratum. The water table is typically found at 0.5 to 1.5 feet.

Limerick-Saco complex

This soil type consists of very deep, poorly drained Limerick and very deep, very poorly drained Saco soils. These soils formed in recent alluvium on floodplains. The surface layer is typically a

dark silt loam that extends to a depth of 5 to 12 inches. Below the surface layers is a dark very fine sandy loam to silt loam substratum. The permeability of the soil is moderate above a depth of 40 inches. The depth to the water table is typically 0 to 1.5 feet.

6.2.5 Invasive Species

Invasive species present on the proposed wetland mitigation site include purple loosestrife (*Lythrum salicaria*) and reed canary grass (*Phalaris arundinacea*). Purple loosestrife is a dominant plant within the emergent marsh on the proposed wetland mitigation site, while reed canary grass is less abundant on the site.

6.2.6 Existing Wildlife Usage

Overall, the vegetation community provides very good cover, perching, denning, and nesting value for a variety of bird, small mammal, amphibian, and reptile species. Some fruit/berry wildlife food producing shrubs are present including dogwood and winterberry. Some coarse woody debris is present potentially providing habitat for small mammals, amphibians, and reptiles.

6.2.7 Rare, Threatened, and Endangered Species

There are no recorded occurrences of rare, threatened or endangered species on the proposed wetland mitigation site. U.S. Fish and Wildlife Service (USFWS) data indicates that the Karner blue butterfly (*Lycaeides melissa samuelis*) and the recently delisted bald eagle (*Haliaeetus leucocephalus*) may be present in Saratoga County.

The Karner blue butterfly occurs primarily in pine barrens, oak savannas or clearings in oak woodland, and maintained openings such as ROWs, airports, and other disturbed areas that contain wild blue lupine (*Lupinus perennis*) and other wildflower species. The proposed mitigation site consists of wetland habitat, which is unsuitable for wild blue lupine.

The proposed wetland mitigation site does not contain suitable bald eagle nest sites (i.e., tall trees that are near large bodies of water).

Correspondence from the USFWS and NYSDEC is included in Attachment C.

6.2.8 Cultural Resources

No known cultural resources are present on the site. Correspondence from the New York State Historic Preservation Office is included in Attachment C.

6.3 Mitigation Work Plan

Within the 13.8-acre proposed wetland mitigation site, National Grid proposes to:

- Preserve 12.5 acres of wetlands and 1.3 acres of upland
- Restore 2.4 acres of degraded wetland through planting wetland tree species (the "restoration area")
- Enhance 10.1 acres of wetlands through invasive plant species management (the "enhancement area")

Figure 3 depicts the location of the mitigation plan elements.

6.3.1 Preservation of Wetlands and Wetland Adjacent Area

The goals of the Project's proposed wetland mitigation include providing 1:1 preservation and permanent protection of 10.4 acres of wetlands to offset the wetland conversion associated with the Project. National Grid proposes to preserve a 13.8-acre mitigation site, comprised of 12.5

acres of wetlands and 1.3 acres of adjacent upland (Figure 3). National Grid proposes to preserve and protect the proposed wetland mitigation site, as described in Section 6.4.

6.3.2 Wetland Restoration/Planting

Wetland tree plantings are proposed on 2.4 acres of the proposed wetland mitigation site (Figure 3) to restore the forested wetland that historically had been converted to agriculture and enhance the wildlife habitat function of the wetland. The planting area is anticipated to become a palustrine forested wetland dominated by deciduous trees with a seasonally flooded or saturated hydrological regime (i.e., PFO1Y). Proposed plantings will be completed in spring 2013.

National Grid (and its consultant TRC) evaluated the existing forested wetlands on the Constantine property and reviewed lists of wetland trees species for Saratoga County (USDA NRCS, 2011b; Tiner, 2000) to establish the proposed compensatory wetland plant list and planting plan. The dominant wetland tree species found in the Project area include: American hornbeam (*Carpinus caroliniana*), willows (*Salix* spp.), green ash (*Fraxinus pennsylvanica*), gray birch (*Betula populifolia*), American elm (*Ulnus americana*), and red maple (*Acer rubrum*).

National Grid proposes a variety of tree species to be planted at an average density of at least 400 woody stems per acre (USACE, 2005a). Proposed wetland species are listed below in Table 6-2 - Plant List for Wetland Restoration Area and on Figure 7 in Attachment D. Actual species planted from this list will depend on commercial availability, as approved by the Project wetland scientist, but a minimum of 3 of the 6 targeted species will be planted. Native species indigenous to the Project area will be purchased from a local nursery and planted in the wetland restoration area to re-establish a forested wetland community. The Project wetland scientist (or environmental monitor) will be present onsite during the plantings to monitor the work and to ensure compliance with requirements of the approved *Comprehensive Wetland Mitigation Plan* and Project permits.

Table 6-2 Plant List for Wetland Restoration Area

Quantity	Size	Common Name	Scientific Name	Region 1 Indicator Status	Wildlife Value[1]
250	4'- 6'	Black willow	*Salix nigra*	FACW+	Food for browsing mammals; nesting site for cavity nesters
250	4'- 6'	Red maple	*Acer rubrum*	FAC	Food source for mammals and birds
200	4'- 5'	American hornbeam	*Carpinus caroliniana*	FAC	Food for songbirds, waterfowl, and small mammals
150	4'- 5'	Gray birch	*Betula populifolia*	FAC	Food for songbirds, gamebirds, and mammals
150	4 - 6'	Silver maple	*Acer saccharinum*	FACW	Food for songbirds and small mammals; nesting site

[1] Martin (1951) and Cole et. al. (1996)

A proposed wetland planting plan and details depicting the planting specifications, including location, quantities, densities, and species necessary to establish a forested wetland at the mitigation site, are provided in Figure 7 in Attachment D. No shrub or herbaceous plantings are planned for the wetland restoration area.

No changes in the soil or grading are planned. The trees will be planted in existing topsoil, which in most areas is more than 12 inches deep, and being native, presumably has an appropriate organic content. If necessary following planting, any bare soils will be seeded with a wetland seed mix.

6.3.2.1 Planting Sequence

The following is a general planting sequence that will be followed:

- Prior to the commencement of planting activities, National Grid will convene a meeting of applicable Project personnel to identify expectations and environmental permit requirements and review the mitigation plan, planting procedures, and planting location. The meeting will be convened by a wetland scientist familiar with the requirements of the approved *Comprehensive Wetland Mitigation Plan* and the conditions issued by the USACE and PSC.

- Before the start of planting activities, the limits of the wetland mitigation site, existing wetlands, and the planting area will be marked in the field using brightly colored survey flagging.

- Immediately after delivery of the plant stock, a representative inspection of the plant materials shall be conducted to determine conformance with the plant material specifications. Pending availability of the specified plants, reasonable substitutions may be made, as approved by the Project wetland scientist.

- The restoration area will be planted with woody plants as shown on the Proposed Planting Plan (Attachment D) and following directions provided by the supplier. All plant locations shall be inspected and approved in the field by the Project wetland scientist prior to installation.

- Following planting of woody vegetation, any disturbed areas will be mulched with straw or other acceptable mulches free of invasive weed seeds. If deemed necessary by the Project wetland scientist, the area will be seeded with a wetland seed mix.

6.3.2.2 Erosion and Sedimentation Controls

Limited soil disturbance is anticipated as a result of the wetland restoration activities. All areas of disturbed soil will be mulched with weed and invasive species seed-free mulch immediately following work.

6.3.2.3 Invasive Species Management

No species listed on the NYSDEC Interim List of Invasive Plant Species in New York State are proposed for planting on the mitigation site. To manage the spread of invasive species during planting activities, the following procedures will be implemented

- Equipment shall be washed prior to introduction to the mitigation site so that invasive seeds are not inadvertently brought to the site.

- All exposed soils as a result of the planting activities will be stabilized using weed and invasive species seed-free mulch.

6.3.3 Wetland Enhancement

The goals of the Project's proposed wetland mitigation include implementation of wetland enhancement activities, such as invasive species management, within at least 6.4 acres of the proposed wetland mitigation site. Management of invasive plant species is proposed in order to increase biodiversity and improve the wildlife habitat value of the wetlands on the proposed wetland mitigation site.

Purple loosestrife (*Lythrum salicaria*), which is present in a high density on the proposed wetland mitigation site, has been shown to reduce plant biodiversity, reduce high quality avian habitat, and alter wetland functions (Blossey et. al., 2001). Traditional control methods, such as hand removal or herbicide use, have produced short term positive effects, but not long term suppression of purple loosestrife (Blossey et. al., 2001). Biological control is considered to be the most promising method for management of large purple loosestrife infestations (Landis et. al., 2003).

The U.S. Department of Agriculture has approved three insect species from Europe for use as biological control agents: a root-mining weevil (*Hylobius transversovittatus*) and two leaf-feeding beetles (*Galerucella calmariensis* and *Galerucella pusilla*). *Galerucella* beetles feed on the leaves, stems, and flowers of purple loosestrife and reduce the growth and reproduction of the plant. *Galerucella* beetles have shown impacts on purple loosestrife in as little as 3 to 5 years after release at some sites (Blossey and Skinner, 2000; Kaufman and Landis, 2000).

To manage purple loosestrife, *Galerucella* beetles will be released on the proposed wetland mitigation site. *Galerucella* beetles will be obtained from the NYSDEC, Cornell University, or other available sources and released in the spring or summer of 2013. A minimum of 1,000 beetles will be obtained to ensure a sufficient release for population establishment (Kenning, 2006) within the 10.1-acre wetland enhancement area. Release sites have produced large populations of *Galerucella* within 4 to 5 years (Blossey and Skinner, 2000). Beetles will be released in the spring or summer after purple loosestrife has emerged (Ragdsale et. al., 2000). The beetles will initially be released in screened cages that will be removed 7 to 10 days after initial release, allowing the beetles to disperse naturally (Lindgren, 2000). Beetles will be released on cooler days when the beetles are less likely to fly and disperse (Kenning, 2006). Prior to the release of the beetles, National Grid will obtain a License to Liberate Wildlife from NYSDEC, if required.

In addition to the implementation of biological control methods, the woody vegetation to be planted will provide shading of sun-loving invasive species already present on the proposed wetland mitigation site and will contribute to the management of invasive species on the proposed wetland mitigation site.

6.3.4 Performance Standards

Mitigation success shall be measured based on the following criteria:

- Completion of wetland plantings in accordance with the approved plans and specifications

- Stabilization of all disturbed soils within the wetland restoration area

- Maintenance of at least an 80% survival rate of the installed plantings for a 10 year period as documented during monitoring events (see Section 6.5 for details)

- Reduction in the number and flowering productivity of purple loosestrife within the wetland enhancement area as documented during monitoring events (see Section 6.5 for details)

6.4 Site Protection

National Grid proposes to acquire fee simple ownership of the 13.8-acre wetland mitigation site from the current landowners following placement of a Declaration of Restriction Covenants ("Declaration") on the property. A copy of the draft Declaration is included as Attachment E. The Declaration will expressly allow for the planting, enhancement, and monitoring activities required by the approved *Comprehensive Wetland Mitigation Plan* and is proposed to remain in perpetuity with the property deed. It will also prohibit all other filling, clearing, or other disturbances on the mitigation site. Following approval of the *Comprehensive Wetland Mitigation Plan* and the draft Declaration language, National Grid will acquire the property from the current landowners. National Grid has initiated negotiations for this process with the current landowners. An Option Agreement has been signed by National Grid and the landowners, and is included as Attachment F. The final executed and recorded Declaration will be sent to the USACE, NYSDEC, and NYSDPS within 180 days of recording.

6.5 Wetland Monitoring and Adaptive Management Plan

Since wetlands evolve and change in response to their surrounding environment, a monitoring and adaptive management program will be implemented for ten (10) years as part of the *Proposed Comprehensive Wetland Mitigation Plan*. The monitoring program will determine if the mitigation site is developing in a manner that meets or exceeds the overall goals and objectives of the plan. The monitoring plan will also serve to identify any potential problems (e.g., invasive species, erosion and sedimentation, poor planting success) early on so that remedial actions can be taken.

6.5.1 Wetland Restoration/Planting Area Monitoring

Monitoring of the wetland restoration area will begin once the area has been constructed and will continue for ten (10) full growing seasons after completion of construction in accordance with USACE and NYSDEC mitigation guidance (USACE, 2005a; NYSDEC, 1993). Monitoring will be conducted by a wetland scientist familiar with the design of the wetland restoration area and the associated permitting requirements. Monitoring will take place at several key times throughout planting of the restoration area and during the first growing season. The time sequence and purpose of the wetland restoration area monitoring site visits during the first growing season is as follows:

Onset of planting: verify adherence to planting specifications and identify planting locations;

Completion of planting: verify planting placement, evaluate need for watering, and identify corrective measures;

Weekly after planting: evaluate for several weeks after initial planting for need for watering and implement as necessary;

Midway through growing season: evaluate planting success and need for watering, inventory occurrence of invasive species, implement remedial measures for invasive species;

Early September: inspect success of plantings, implement necessary corrective measures before month end (end of growing season), photograph site from designated monitoring stations, and evaluate achievement of compensatory mitigation goals; and

Early October: inspect success of plantings, implement necessary corrective measures before month end (end of growing season) photograph site from designated monitoring stations, and evaluate achievement of mitigation goals.

Following the first growing season, monitoring of the restoration area will take on a routine schedule for the remainder of the ten years of monitoring. Monitoring will occur twice a year during the growing season for the second and third years, once a year during the growing season for years 4-6, and once a growing season every other year for the remaining 4 years. A complete monitoring schedule is included as Attachment G.

6.5.1.1 Monitoring Stations

Five (5) permanent monitoring stations will be established in the restoration area from which photographs will be taken to track development of wetland conditions (Mitchell and Hughes, 1995; Strimbu). The locations of monitoring stations will be established randomly and will be GPS-located and staked in the field. Vegetative data will be collected from a $1/20^{th}$ acre plot at each monitoring station (Mitchell and Hughes, 1995; Strimbu). Data to be collected at these stations will include species composition, percent dominance, and percent survival of planted species. Conditions throughout the restoration area such as vegetative cover, occurrence and

extent of invasive species, evidence of disturbance, slope stability, and use by wildlife (e.g., tracks, scat, browsing, or nests) will also be recorded.

6.5.2 Purple Loosestrife Monitoring

Monitoring of the effectiveness of the biological control of purple loosestrife will be conducted in accordance with the Cornell University Ecology and Management of Invasive Plants Program's monitoring protocol for fall sampling (2003).

Monitoring of purple loosestrife will be conducted annually between late August and early October to assess the abundance and reproductive activity of purple loosestrife. This monitoring will generally be conducted at the same time as the wetland restoration area monitoring. Ten (10) one-square meter monitoring plots will be established on the site. The locations of plots will be established randomly and will be GPS-located and staked in the field. Each plot will be photographed from a fixed location.

The following data will be recorded in each plot:

- Percent of the plot that is vegetated
- Percent cover of purple loosestrife and other species present
- Number of purple loosestrife stems >20cm in height
- Number of purple loosestrife inflorescences
- For the 5 tallest purple loosestrife stems in each plot, the following measurements will be taken:
    - Stem height
    - Number of inflorescences on the stem

- Length of the longest inflorescence on the stem
- Number of flower buds in the central 5cm portion of the longest inflorescence

6.5.3 Monitoring Report

Conditions observed throughout the wetland mitigation site will be summarized in the annual monitoring report along with any necessary recommendations for remedial measures such as replanting dead vegetation, controlling invasive species or noxious weeds, and stabilizing un-vegetated or eroding soil. Data collected during monitoring visits will be summarized and presented in the monitoring report.

The monitoring reports will contain:

- A restatement of the goals, objectives, and performance standards for the mitigation site
- Plans showing the location of monitoring stations
- A summary of and full presentation of the data collected
- An assessment of planted species survival and sustainability
- An assessment of the presence and abundance of invasive species
- Representative photographs
- A description of management activities and corrective actions implemented
- An assessment of the degree to which performance standards are being met
- Recommended remedial measures needed to correct problems or deficiencies
- A narrative summary of the results and conclusions of the monitoring

6.5.4 Adaptive Management Plan

In response to observations made through monitoring, actions may need to be taken to respond to current conditions (i.e., adaptive management). The monitoring reports will describe current conditions and any deficiencies at the mitigation site and will recommend remedial measures, as described in Section 6.5.3 above.

The effectiveness of any corrective actions will be evaluated during subsequent monitoring and will be reported in the monitoring report. The monitoring report will recommend any changes to the monitoring schedule that may be necessary following the identification of deficiencies and the implementation of corrective measures.

The following table addresses common post-construction problems that may occur on the wetland mitigation site and typical corrective measures.

Table 6-3 Potential Corrective Measures for the Wetland Mitigation Site

Potential Problem Areas	**Typical Corrective Measures**
Herbivory	Tree guards/shelters
Introduction or spread of invasive species	Manual, mechanical, biological, or chemical control
Mortality of planted trees	Assess hydrology; supplemental plantings
Inability to obtain the specified 1,000 beetles; Insufficient *Galerucella* beetle activity	Subsequent release of additional beetles, pending availability
Erosion or sedimentation	Stabilize soils; install erosion and sediment controls as necessary

6.6 Cost Estimate

National Grid estimates that the implementation of the *Proposed Comprehensive Wetland Mitigation Plan*, excluding property acquisition, will cost approximately $265,000. The allocation of the costs is shown in Table 6-4 below.

Table 6-4 Wetland Mitigation Cost Estimate

Task	Estimated Cost
Property acquisition	$ Confidential
Tree installation & beetle release	$ 150,000
Monitoring of mitigation site for 10 years	$ 115,000
TOTAL MITIGATION COST	$ 265,000

7.0 Summary

National Grid's *Proposed Comprehensive Wetland Mitigation Plan* describes the avoidance, minimization, and mitigation measures for wetland impacts associated with the Spier Falls to Rotterdam New 115kV Transmission Project. Wetlands that will be temporarily impacted by wetland matting will be restored to pre-construction condition. Where DPS Staff or NYSDEC determine that restoration was not adequate because temporary road mats remaining in place for four months or more during the growing season caused more extensive or significant impacts, National Grid will consult with DPS and NYSDEC to develop site-specific mitigation measures to restore lost wetland functions and values. National Grid, in consultation with NYSDEC, has identified a proposed wetland mitigation site with the potential for restoration of degraded wetlands, enhancement of existing wetlands, and preservation of existing wetlands to provide compensation for wetland conversion associated with the Project. Within the proposed wetland mitigation site, 2.4 acres of degraded wetlands will be restored through the planting of wetland

tree plantings. Invasive species management will be implemented on 10.1 acres of wetlands through the release of *Galerucella* beetles to manage purple loosestrife. The proposed wetland planting and invasive species management will be implemented concurrently with construction of the Project. Following these activities, National Grid will monitor the mitigation site for 10 years to assess the mitigation site and to take remedial actions when necessary to achieve the performance standards identified in this plan.

8.0 References

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ATTACHMENT A

SITE PHOTOGRAPHS

Site Photographs

View of PEM looking northeast from driveway (8/17/2011).

View of PEM looking north (11/11/2011).

Site Photographs

View of Gordon Creek looking west from Goode Rd (11/11/2011).

View of PSS and PFO looking north (11/11/2011).

ATTACHMENT B

WETLAND DELINEATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: SF-R Mitigation Site City/County: Milton Sampling Date: 11/10/2011

Applicant/Owner: Nat. Grid State: NY Sampling Point: SA59A wet transect 1

Investigator(s): HV JG Section, Township, Range:

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none

Slope (%): 0 Lat: Long: Datum:

Soil Map Unit Name: Cheektowaga mucky very fine sandy loam NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No

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?	Yes X	No	Is the Sampled Area within a Wetland? Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: SA59A

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

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- X Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 1"
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0"

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SA59 Acwet

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	30	Y	FACW
2. Fraxinus penn.	10	Y	FACW
3. Acer rubrum	5	N	FAC
4. Pinus strobus	5	N	FACU
5.			
6.			
7.			
	50	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Ulmus americana	5	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Onoclea sensibilis	30	Y	FACW
2. Fragaria virginiana	5	N	FACU
3. unknown #1 - Viola sp.	20	Y	
4. unknown #2	5	N	
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	

Woody Vine Stratum (Plot size: 30')			
1. none			
2.			
3.			
4.			
		= 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:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological 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 Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: SA 59 Awet

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100	—	—	—	—	muck	Oi
6-18+	10YR 4/1	80	10YR 5/6	20	C	M	loamy	sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: SF-R/Mitigation site City/County: Milton/Saratoga Sampling Date: 11/10/2011
Applicant/Owner: Nat. Grid / Constantine State: NY Sampling Point: SA59A up transect 1
Investigator(s): H.Vaillant, J. Gallus Section, Township, Range:
Landform (hillslope, terrace, etc.): undulating Local relief (concave, convex, none): none
Slope (%): 0-5% Lat: Long: Datum:
Soil Map Unit Name: Cheektowaga mucky very fine sandy loam NWI classification: —
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
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?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

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

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

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)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 6"
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 6"

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SA59A up

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus Strobus	30	Y	FACU
2. Quercus alba	5	N	FACU
3. Prunus Serotina	5	N	FACU
4. Ulmus americana	15	Y	FACW
5. Tsuga Canadensis	10	N	FACU
6.			
7.			
	65	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Pinus Strobus	5	Y	FACU
2. Ulmus americana	5	Y	FACW
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Mitchella repens	5	N	FACU
2. Dryopteris intermedia	15	Y	FACU
3. Onoclea sensibilis	10	Y	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	30	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= 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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	105 (A)		360 (B)

Prevalence Index = B/A = 3.4

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological 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 Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: SA59Aup

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100	---	---	---	---	loam	
8-18+	10YR 5/3	90	10YR 4/6	10	C	M	loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (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)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Spier Falls-Rotterdam/Mitigation City/County: Milton/Saratoga Sampling Date: 11/10/2011
Applicant/Owner: National Grid/Constantine State: NY Sampling Point: SA59A wet transect a
Investigator(s): H. Vaillant, J. Gallus Section, Township, Range: _____
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none
Slope (%): 0-5% Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Cosad fine sandy loam NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
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?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	If yes, optional Wetland Site ID: SA59A
Wetland Hydrology Present?	Yes X	No _____	

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

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

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)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): _____
Water Table Present?	Yes X	No ___	Depth (inches): 6"
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 6"

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SA59A wet

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Lythrum salicaria	75	Y	FACW
2. Carex sp.	3	N	
3. Lotus corniculatus	10	N	FACU
4. Solidago canadensis	15	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	103 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. none			
2.			
3.			
4.			
	= 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:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological 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 Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: SA59A wet

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					LOAM	
10-18	10YR 5/1	80	10YR 5/6	20	C	M	LOAMY SAND	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Spier Falls - Rotterdam / Mitigation City/County: Milton / Saratoga Sampling Date: 11/10/2011
Applicant/Owner: National Grid / Constantine State: NY Sampling Point: SA59A up transect 2
Investigator(s): H. Vaillant, J. Gallus Section, Township, Range: _____
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none
Slope (%): 0-5 Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Cosad fine sandy loam NWI classification: —
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
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?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes X	No _____	

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

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

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)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____	
Water Table Present?	Yes X	No _____	Depth (inches): 12"	
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 12"	**Wetland Hydrology Present?** Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SA59A-up

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Lythrum salicaria	50	Y	FACW
2. Solidago canadensis	20	Y	FACU
3. Solidago gigantea	10	N	FACW
4. Daucus carota	15	N	NL
5. Cornus ammomum	5	N	FACW
6. Lotus corniculatus	20	Y	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	120 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. none			
2.			
3.			
4.			
	= 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	15	x 5 =	75
Column Totals:	120 (A)		365 (B)

Prevalence Index = B/A = 3.0

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test is >50%
- X Prevalence Index is ≤3.0[1]
- ___ Morphological 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 Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: SA59A-up

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/2	100	—	—	—	—	loam	
10-16	10YR 5/3	90	10YR 4/4	10	C	M	loamy fine sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (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)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: ROCK

Depth (inches): 16

Hydric Soil Present? Yes ____ No X

Remarks:

ATTACHMENT C

AGENCY CONSULTATIONS

10 Maxwell Drive
Suite 200
Clifton Park, NY 12065

518.348.1190 PHONE
518.348.1194 FAX

www.TRCsolutions.com

January 18, 2012

Robyn Niver, Endangered Species Biologist
U.S. Fish and Wildlife Service
New York Field Office
3817 Luker Road
Cortland, NY 13045

Subject: **Project No. 70814**
Niagara Mohawk Power Corporation d/b/a National Grid
Spier Falls-Rotterdam New 115 kV Transmission Line Project
Towns of Rotterdam, Glenville, Charlton, Ballston, Milton, Greenfield, Corinth, and Moreau in Schenectady and Saratoga Counties, NY
Consultation on Threatened and Endangered Species

Dear Ms. Niver:

Niagara Mohawk d/b/a National Grid ("National Grid") previously contacted the U.S. Fish and Wildlife Service in November 2009 and October 2011 regarding its proposed plans to site and construct a new 115 kV transmission line between Rotterdam in Schenectady County and Spier Falls in Saratoga County.

The Project has since been revised to include an off-right-of-way wetland mitigation site. The enclosed figures depict the location of the wetland mitigation site. The work proposed on the site includes the planting of saplings within a 2.4-acre portion of the property and the release of *Galerucella* beetles for purple loosestrife management. No earthwork is proposed on the site.

On behalf of National Grid, TRC searched the New York State County List of Threatened, Endangered and Candidate Species on the USFWS New York Field Office website to assess threatened, endangered and candidate species potentially present on the mitigation site. The following species were listed for Saratoga County: bald eagle (*Haliaeetus leucocephalus*), Indiana bat (*Myotis sodalis)*, and Karner blue butterfly

(*Lycaeides melissa samuelis*). The species and their potential habitat on the project site are described in detail below.

Bald eagle

Bald eagles are large raptors that usually hunt over large bodies of water, primarily for fish. The eagles build stick nests at the tops of tall trees, and pairs typically reuse nests and nest trees over a number of years. The mitigation site does not contain suitable bald eagle nest sites (i.e., tall trees that are near large bodies of water).

Indiana bat

According to the USFWS, Indiana bats that formerly wintered in Albany County are now thought to be extirpated or present in such low numbers that "*it is unlikely that they would be present and impacted by any specific projects in Albany, Rensselaer, Saratoga, Schenectady and Schoharie Counties" (*USFWS County List Data: http://www.fws.gov/northeast/nyfo/es/CountyLists/SaratogaDec2006.htm).

Karner blue butterfly

Wild blue lupine, the larval host plant for Karner blue butterflies, is associated with open, early successional habitats and clearings with well-drained soils. As the mitigation site consists of wetland (i.e., poorly drained soils), the site does not provide suitable habitat for wild blue lupine or the Karner blue butterfly.

TRC reviewed the NYSDEC's Environmental Resource Mapper Rare Plants and Rare Animals layer. No rare species records are shown for the mitigation site.

Since this project remains subject to a Nationwide Permit under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, TRC, on behalf of National Grid, requests your concurrence that there is no potential habitat for threatened and endangered species on the proposed mitigation site.

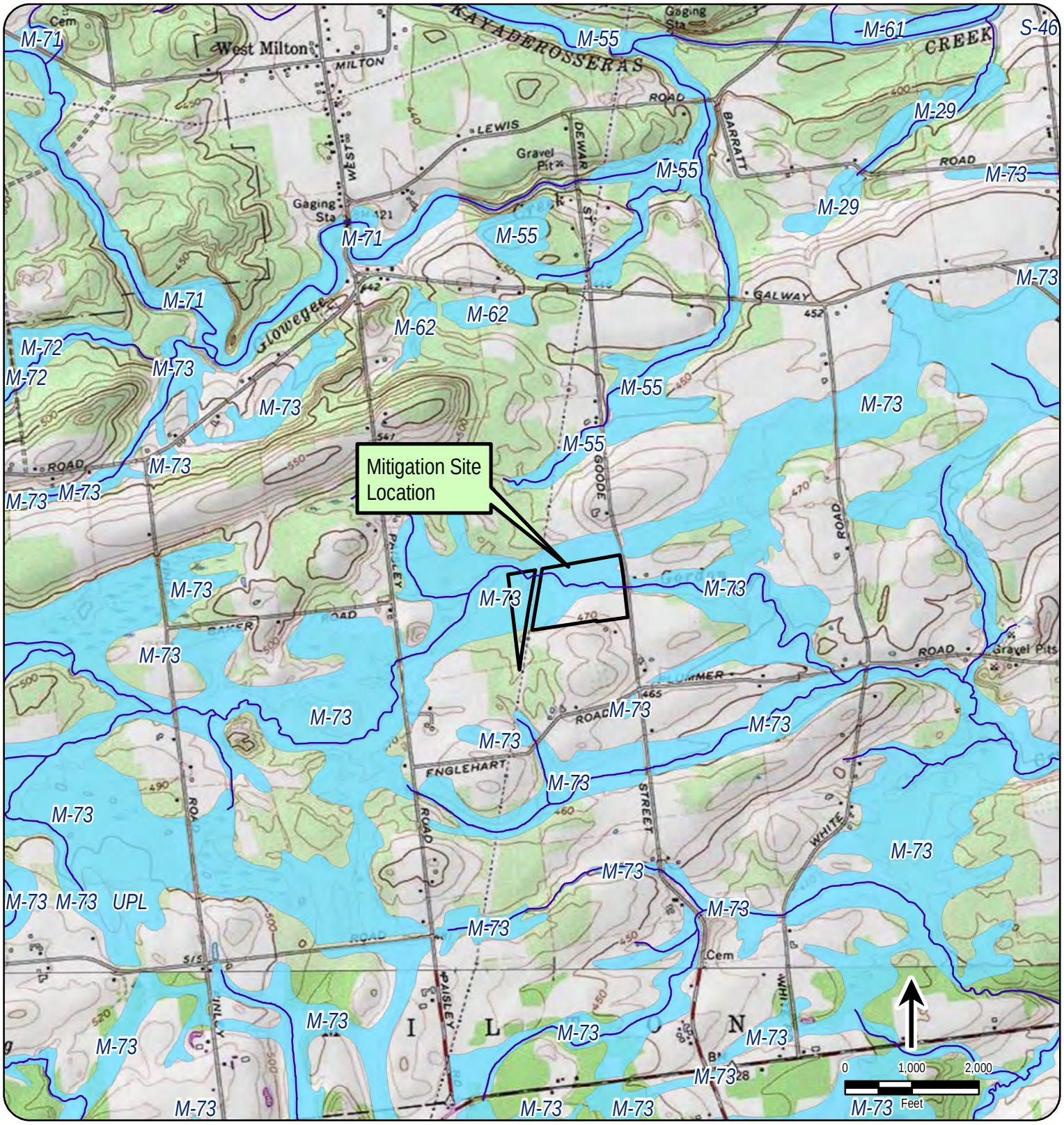
If you have any questions regarding the project or the request herein, please contact me at TRC by calling 518-688-3146 or my email address at jsbrown@trcsolutions.com, or you may contact National Grid's Principal Environmental Engineer Michael Sherman at 315-428-6624 or his email address at Michael.Sherman@us.ngrid.com.

Sincerely,

Joshua S. Brown
Project Manager

cc: Michael Sherman, National Grid
Thomas McMahon, National Grid
Lance Durfey, NYSDEC
NYSDEC Natural Heritage Program
Christine Delorier, USACE
Dave Morrell, DPS
Catherine Robertson, DPS

Enclosures: Figure 1: General Location Map
Figure 3: Proposed Mitigation



Legend

- Constantine Parcel
- DEC Wetlands
- DEC Streams

DEC Wetland ID

nationalgrid

Spiers Falls-Rotterdam Project

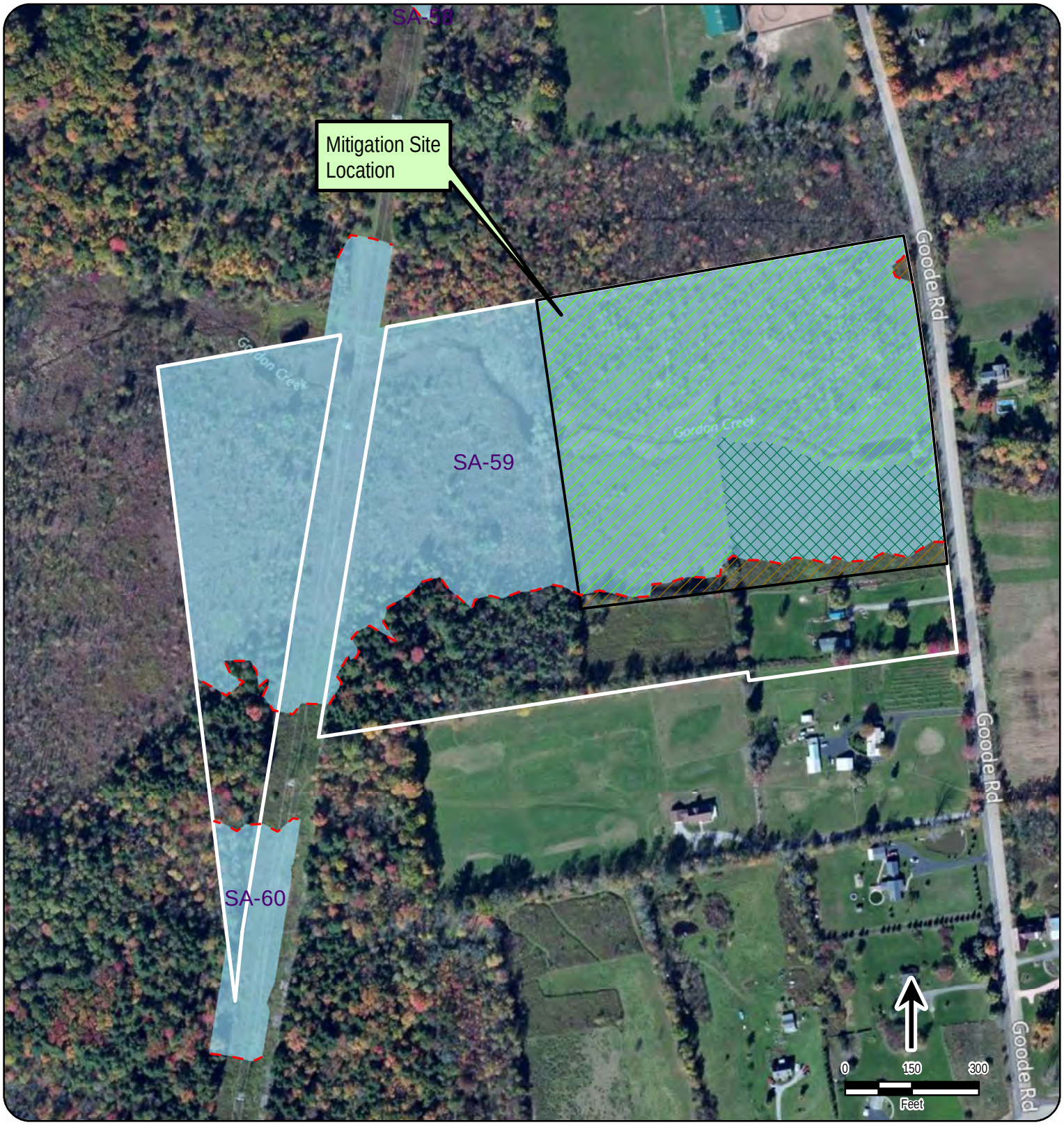
Figure 1

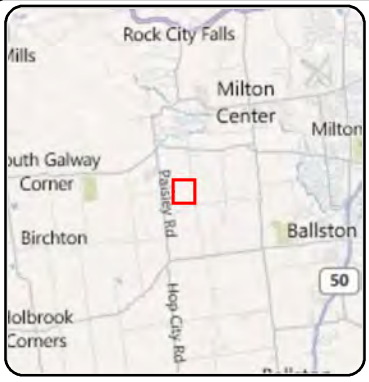
General Location Map - USGS

Constantine Mitigation Parcel

Milton, NY

Map Created by TRC on: 1/13/2012





Legend

- Delineated Wetland Boundary
- Proposed Mitigation Area - 13.8 ac
- Proposed Wetland Preservation/Enhancement Area -10.6 ac.
- Proposed Upland Preservation Area - 0.8 ac
- Proposed Wetland Restoration/Planting Area - 2.4 ac.
- Constantine Parcel
- Wetland SFR-Wetland ID

nationalgrid

Spiers Falls-Rotterdam Project

Figure 3

Proposed Mitigation

Constantine Mitigation Parcel

Milton, NY

Map Created by TRC on: 1/13/2012

United States Department of the Interior

FISH AND WILDLIFE SERVICE

New York Field Office
3817 Luker Road
Cortland, NY 13045
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo

To: Joshua Brown Date: Feb 24, 2012

USFWS File No: 70814

Regarding your: ☒ Letter ☐ FAX ☐ Email Dated: January 18, 2012

For project: Spier-Rotterdam 115 kV transmission line to include an off-right-of-way wetland mitigation site

Located: between Rotterdam and Spier Falls

In Town/County: Schenectady and Saratoga Counties

Pursuant to the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Fish and Wildlife Service:

☐ Acknowledges receipt of your "no effect" and/or no impact determination. No further ESA coordination or consultation is required.

☒ Acknowledges receipt of your determination. Please provide a copy of your determination and supporting materials to any involved Federal agency for their final ESA determination.

☐ Is taking no action pursuant to ESA or any other legislation at this time but would like to be kept informed of project developments.

As a reminder, until the proposed project is complete, we recommend that you check our website (http://www.fws.gov/northeast/nyfo/es/section7.htm) every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project area is current. Should project plans change or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered.

USFWS Contact(s): Robyn Niver

Supervisor: Patricia Cole Date: 2/24/2012

10 Maxwell Drive
Suite 200
Clifton Park, NY 12065

518.348.1190 PHONE
518.348.1194 FAX

www.TRCsolutions.com

January 18, 2012

New York State Historic Preservation Office
Peebles Island Resource Center
Delaware Avenue, P.O. Box 189
Waterford, NY 12188-0189

Subject: **Project No. 07PR04284**
Niagara Mohawk Power Corporation d/b/a National Grid
Spier Falls-Rotterdam New 115 kV Transmission Line Project
Towns of Rotterdam, Glenville, Charlton, Ballston, Milton, Greenfield, Corinth, and Moreau in Schenectady and Saratoga Counties, NY

Project Review Coordinator:

Niagara Mohawk d/b/a National Grid ("National Grid") previously contacted the New York State Historic Preservation Office ("NYSHPO") in July 2011 regarding its proposed plans to site and construct a new 115 kV transmission line between Rotterdam in Schenectady County and Spier Falls in Saratoga County.

The Project has since been revised to include an off-right-of-way wetland mitigation site. The enclosed figures depict the location of the proposed wetland mitigation site. The work proposed on the site includes the planting of saplings within a 2.4-acre portion of the property and the release of *Galerucella* beetles for purple loosestrife management. No earthwork is proposed on the site.

Since this project remains subject to an Article VII review under New York State Public Service Law and a Nationwide Permit under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, TRC, on behalf of National Grid, hereby requests review and confirmation of the latest records for the presence of any known state historic and archeological resource information for the site.

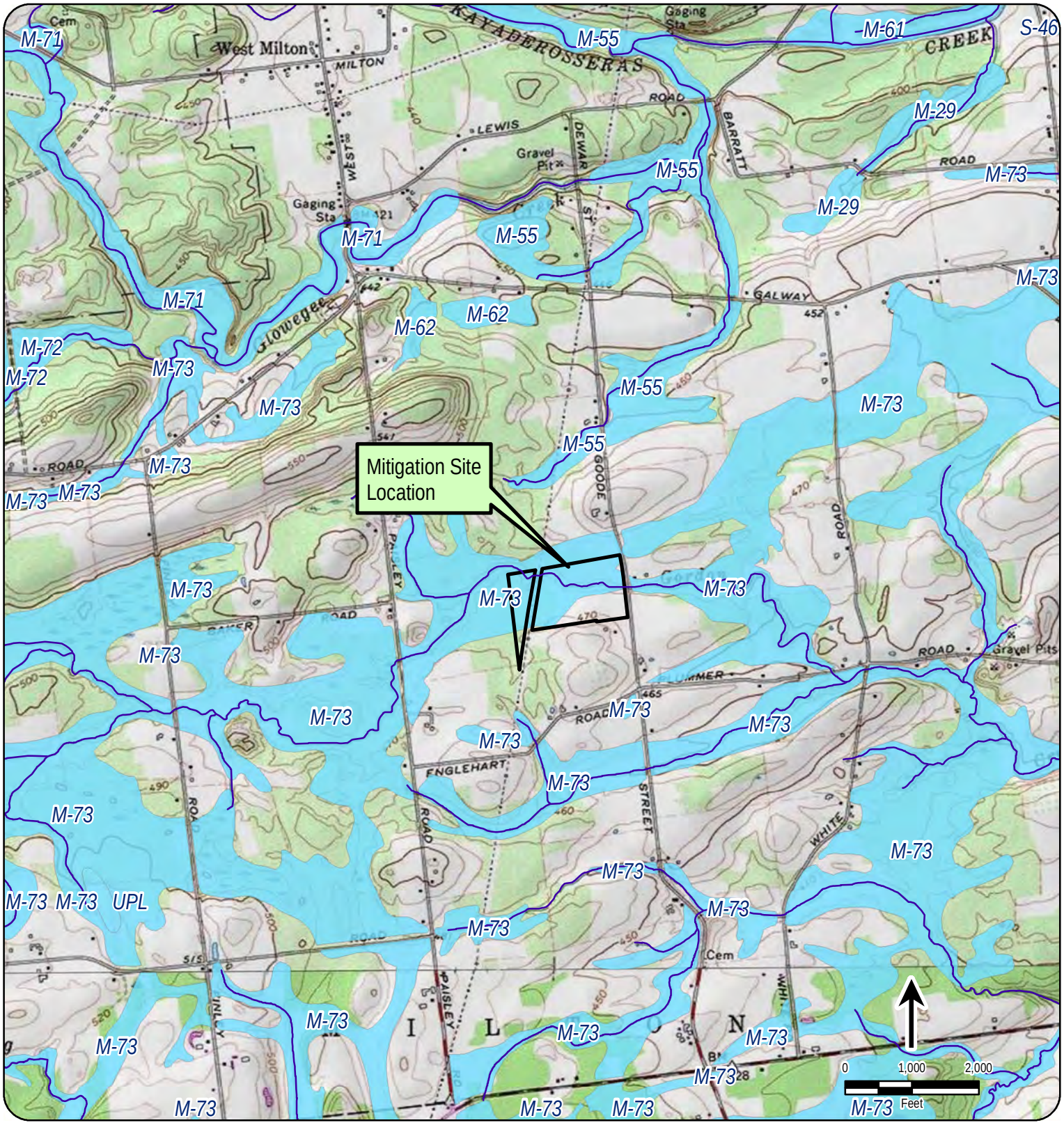
If you have any questions regarding the project or the request herein, please contact me at TRC by calling 518-688-3146 or my email address at jsbrown@trcsolutions.com, or you may contact National Grid's Principal Environmental Engineer Michael Sherman at 315-428-6624 or his email address at Michael.Sherman@us.ngrid.com.

Sincerely,

Joshua S. Brown
Project Manager

cc: Thomas McMahon, National Grid
Michael Sherman, National Grid
Dave Morrell, DPS
Catherine Robertson, DPS

Enclosures: Figure 1: General Location Map
Figure 3: Proposed Mitigation



Legend

- Constantine Parcel
- DEC Wetlands
- DEC Streams

DEC Wetland ID

nationalgrid

Spiers Falls-Rotterdam Project

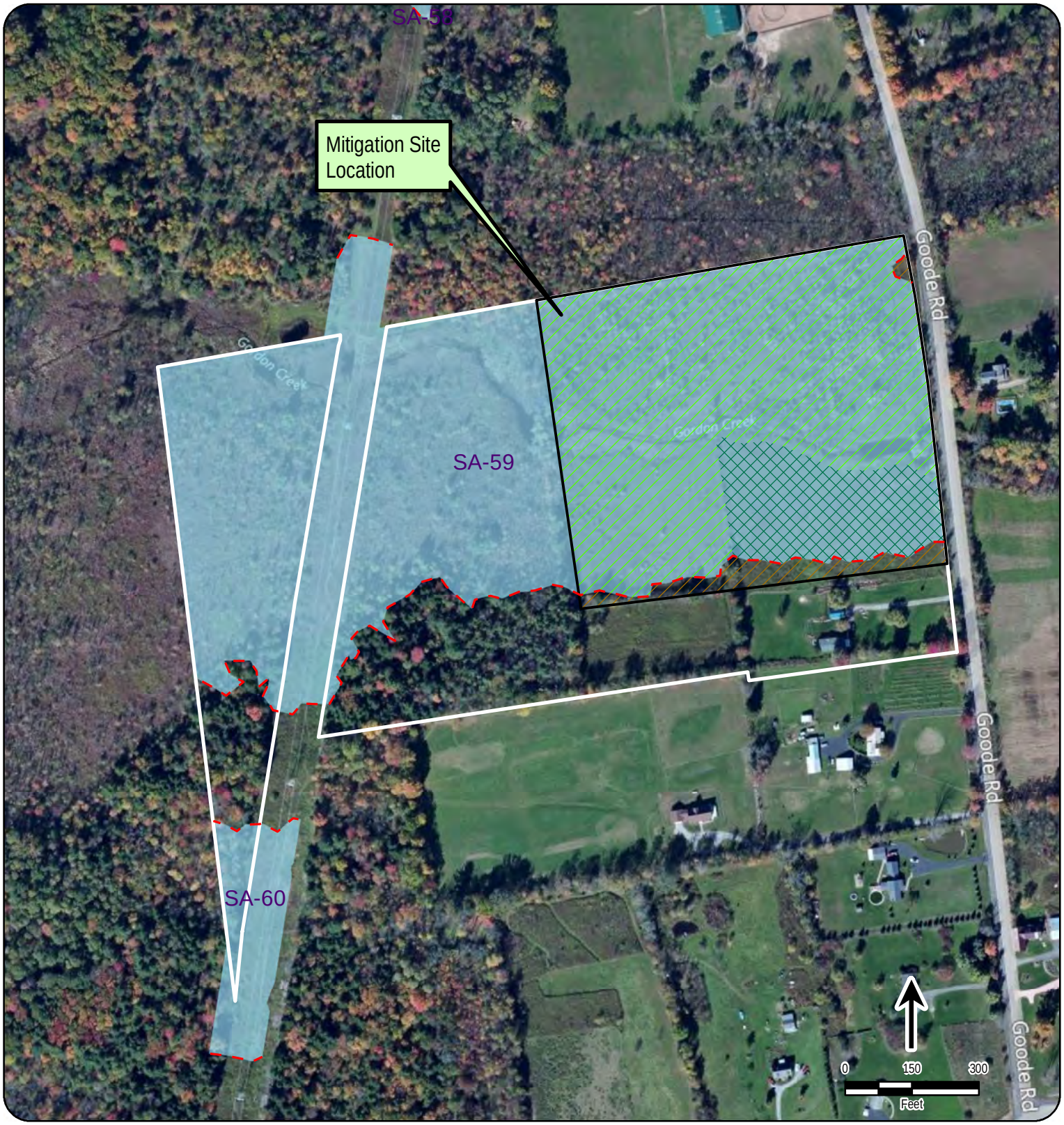
Figure 1

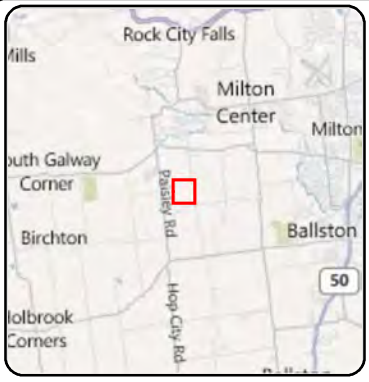
General Location Map - USGS

Constantine Mitigation Parcel

Milton, NY

Map Created by TRC on: 1/13/2012





Legend

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- Proposed Mitigation Area - 13.8 ac
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- Proposed Upland Preservation Area - 0.8 ac
- Proposed Wetland Restoration/Planting Area - 2.4 ac.
- Constantine Parcel
- Wetland SFR-Wetland ID

nationalgrid

Spiers Falls-Rotterdam Project

Figure 3

Proposed Mitigation

Constantine Mitigation Parcel

Milton, NY

Map Created by TRC on: 1/13/2012

OFFICE OF PARKS · RECREATION · HISTORIC PRESERVATION
NEW YORK STATE

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

February 2, 2012

Joshua Brown
TRC Solutions
10 Maxwell Drive
Suite 200
Clifton Park, NY 12065
(via email only)

Re: CORPS, PSC
Spier Falls-Rotterdam New 115kV
Transmission Line/**Wetland Mitigation**
Multiple Towns
Saratoga & Schenectady Counties
07PR4284

Dear Mr. Brown:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). The SHPO has reviewed your January 18, 2012 letter summarizing the revisions to the project which include the planting of samplings (2.4 acres) and the release of *Galerucella* beetles, in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended.

Based upon this review, it is the SHPO's opinion that your project will continue have **No Effect** upon historic properties in or eligible for inclusion in the State and National Register of Historic Places.

The SHPO appreciates the opportunity to comment on this information. Further consultation with the SHPO is recommended if there are any changes to the project. Please telephone me at ext. 3280 with any questions you may have.

Sincerely,

Nancy Herter

Nancy Herter
Scientist, Archaeology

cc. Michael Sherman, National Grid *(via email only)*

ATTACHMENT D

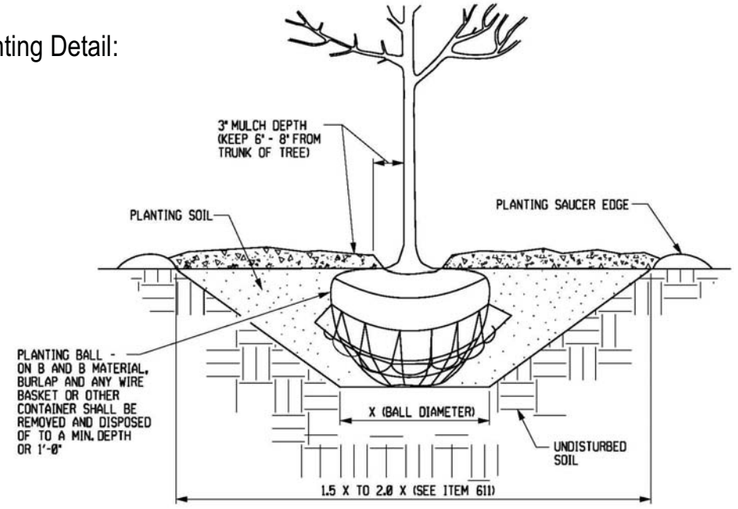
PROPOSED PLANTING PLAN

S:\Projects\TRC\August\1-NGRID\Figure 7 Planting Plan Rev1.mxd

Plant Species:

Symbol	Common Name	Scientific Name	Quantity	Size	Spacing	Region 1 Indicator Status
	Black willow	*Salix nigra*	250	4'- 6'	10' on Center	FACW+
	Red maple	*Acer rubrum*	250	4'- 6'	10' on Center	FAC
	American hornbeam	*Carpinus caroliniana*	200	4'- 5'	10' on Center	FAC
	Gray birch	*Betula populifolia*	150	4'- 5'	10' on Center	FAC
	Silver maple	*Acer saccharinum*	150	4 - 6'	10' on Center	FACW

Planting Detail:



GENERAL TREE PLANTING

Planting Notes:

1. All plant material used shall have a normal habit of growth with well-developed branch systems and vigorous root systems. They shall be sound, healthy, and vigorous plants, free from visible defects, disfiguration, injury, recognizable disease of any kind, insect eggs, borers, and any infestation.

2. At all times, the trees shall be handled gently and in a manner that will not injure, harm, or desiccate the plant materials. The Contractor shall ensure that sufficient fresh water is available for all planting operations and the watering of the stock.

3. Trees shall be planted in the areas designated on the plans. All plant locations shall be inspected and approved in the field by the project wetland scientist prior to installation.

4. The planting will consist of the material specified on the planting plan. It may be necessary to substitute if the specified plant material is not available. Any substitutions must be approved by the wetland scientist prior to planting.

5. The project wetland scientist will be present onsite during planting activities to monitor the work and to ensure compliance with requirements of the compensatory wetland plan and permits.

Legend

- Delineated Wetland Boundary
- Proposed Wetland Restoration/Planting Area
- Wetland SFR-Wetland ID

nationalgrid

SPIER FALLS-ROTTERDAM
115kV LINE PROJECT

Figure 7

Proposed Planting Plan
Constantine Mitigation Parcel

Prepared by: TRC 4/5/2012

ATTACHMENT E

PROPOSED FORM OF
DECLARATION OF RESTRICTIVE COVENANTS

STATE OF NEW YORK
COUNTY OF SARATOGA

DECLARATION OF
RESTRICTIVE COVENANTS

THIS DECLARATION OF RESTRICTIVE COVENANTS is made this _____day of _____ 2012, by PAUL J. CONSTANTINE and JOAN H. CONSTANTINE, individuals with an address of 252 Route 9, Malta, NY 12020 (jointly and severally "Declarant").

RECITALS

WHEREAS, Declarant is the owner in fee of certain real property (the "Property") comprising 13.8 acres, more or less, and located in the Town of Milton, Saratoga County, New York. The Property is a portion of tax map ID number 201-2-24.11, and is indicated on a plat entitled "_____ _____" ("Property Map"), recorded with the Saratoga County Clerk at Book ____, Page_. The Declarant's deed to the Property is recorded at Book of Deeds 2009, Page 9238; and

WHEREAS, Niagara Mohawk Power Corporation, a New York corporation with a business address at 300 Erie Boulevard West, Syracuse, New York, 13202 ("Permittee"), in connection with its Spier Falls – Rotterdam 115 kV transmission line project (the "Project"), is obtaining fee owned and vegetation easement areas (the "Project Lands") as described in the Project's Supplemental Environmental Management and Construction Plan dated as of July, 2011 ("Supplemental EM&CP") and in connection therewith has prepared a Wetland Mitigation Plan dated as of July, 2011 describing certain wetland impacts associated with the Project, identifying the Project's wetland mitigation goals and objectives, and identifying components of a Proposed Comprehensive Wetland Mitigation Plan (the "Comprehensive Plan") which was dated April _____, 2012 and approved by the U.S. Army Corps of Engineers, New York District ("Corps of Engineers", to include any successor agency), on _____; and

WHEREAS, the Project includes discharge of dredged or fill material in a manner authorized by Department of the Army Nationwide General Permit Number 12 ("NWP") in accordance with Section 404(e) of the Federal Clean Water Act, 33 U.S.C. § 1344, and Section 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 401 et. seq., application number NAN-2011-00132, having been authorized by letter issued on December 30, 2011 by the Corps of Engineers; and

WHEREAS, as a portion of the mitigation required by the NWP, and in connection with the Supplemental EM&CP and the Comprehensive Plan, Permittee has identified the Property for purposes of wetlands mitigation and intends to acquire fee simple ownership of the Property from Declarant immediately upon the delivery and acceptance of this Declaration of Restrictive Covenants; and

WHEREAS, in recognition of the continuing benefit to the Property; and for the protection of waters of the United States and scenic, resource, environmental, and general property values; Declarant agrees to place certain Restrictive Covenants on the Property (the "Restricted Property"), in order that the Restricted Property shall remain substantially in its natural condition forever, and upon recording this Declaration of Restrictive Covenants, transfer fee ownership in and to the Restricted Property to Permittee; and

WHEREAS, the Restricted Property comprises a total of 13.8 acres of wetlands and adjacent uplands and is shown on the Property Map; and

WHEREAS, a metes and bounds description of the Restricted Property is attached to this Declaration as Exhibit "A" and made a part hereof; and a reduced copy of the Property Map is attached to this Declaration as Exhibit "B" and made a part hereof.

NOW THEREFORE, for good and valuable consideration as set forth above, Declarant hereby declares that the Restricted Property shall be held, occupied, and used, and shall be transferred, conveyed, leased, or otherwise disposed of subject to the following restrictive covenants ("Restrictive Covenants"), which shall run with the Restricted Property in perpetuity, and be binding on all heirs, successors (including Permittee), assigns, lessees, other occupiers and users, (they are included in the term, "Declarant," below), but shall be subject to Declarant's reserved rights which follow, and to the requirements of the NWP.

PROHIBITIONS

1. General. There shall be no future filling, flooding, excavating, mining or drilling; no removal of natural materials; and no alteration of the topography which would materially affect the Restricted Property in any manner, except as authorized by the NWP.

2. Waters and Wetlands. In addition to the general restrictions above, within the Restricted 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 or regulations, except as authorized by the NWP.

3. Trees/Vegetation. On the Restricted Property there shall be no clearing, burning, cutting or destroying of trees or vegetation, except removal or trimming of vegetation hazardous to person or property, or of timber downed or damaged due to natural disaster, or as authorized by the NWP. There shall be no planting or introduction of non-native or exotic species of trees or other vegetation.

4. Disposal: There shall be no dumping of trash, waste, garbage or toxic, unsightly, hazardous or offensive material on the Restricted Property.

5. Uses. No agricultural, animal husbandry, industrial, mining, logging or commercial activity shall be undertaken or allowed on the Restricted Property.

6. Structures/Utilities. There shall be no construction, erection, or placement of buildings, billboards, utilities components or any other structures, to include trailers, mobile homes or recreational vehicles, telecommunications towers or antennas, on the Restricted Property.

7. Roads. There shall be no construction of roads, trails or walkways on the Restricted Property.

8. Pest Control. There shall be no application of pesticides or herbicides to control vegetation on the Restricted Property, without prior written approval of the Corps of Engineers and any other governmental approvals required.

9. Vehicle Use. There shall be no driving or use of any mechanical conveyance which may alter or impair the natural contour of the Restricted Property or its natural vegetation, except that motor vehicles may be used in case of emergency, for law-enforcement purposes, or to perform mitigation activity as required by the NWP.

10. Other Prohibitions. Any other use of, or activity on, the Restricted Property which is or may become inconsistent with the purposes of this Declaration, the preservation of the Restricted Property substantially in its natural condition, or the protection of its environmental systems, is prohibited.

GENERAL CONDITIONS

1. Other Restrictions. The Declarant represents and warrants that no restriction of record on the use of the Restricted Property, nor any presently existing future estate or interest in the Restricted Property, nor any lien, obligation, covenant, limitation, lease, mortgage or encumbrance of any kind precludes the imposition of the restrictions, covenants, obligations or agreements of this Declaration, or the maintenance of the Restricted Property in accordance herewith.

2. Existing Conditions. The Declarant represents and warrants that no structures of any kind (to include roads, trails or walkways) exist, and that no violations of any these Restrictive Covenants exist, on the Restricted Property at the time of execution of this Declaration.

3. Reserved Rights. The Restrictive Covenants set forth in this Declaration are created solely for the protection of the Restricted Property, and for the consideration and values set forth above, and Declarant reserves the ownership of the fee simple estate upon the Restricted Property and all rights appertaining thereto, including the right to engage in all acts or uses not prohibited by this Declaration and not inconsistent with the conservation purposes hereof. It is expressly understood and agreed that the terms of this Declaration do not grant or convey to members of the general public any rights of ownership, entry or use of the Restricted Property.

4. Marking. The limits of the Restricted Property have been marked in a manner approved by the Corps of Engineers, and such markings shall be maintained in place so as to notify the public that the Restricted Property is an area preserved for conservation purposes.

5. Recording. The Property Map, depicting the boundaries of the Restricted Property, is recorded with the Saratoga County Clerk at Book __, Page _____. This Declaration shall be recorded in the records of the County Clerk, shall be indexed against the Restricted Property, and

the Corps of Engineers shall be provided with a copy of this Declaration, as filed, within 30 days of execution hereof.

6. Compliance Inspections. The Corps of Engineers and its authorized agents shall have the right to enter and go upon the Restricted Property to inspect the Restricted Property and take actions necessary to verify compliance with the Restrictive Covenants set forth in this Declaration.

7. Enforcement. The Corps of Engineers and the U.S. Department of Justice shall have a discretionary right to enforce the Restrictive Covenants set forth in this Declaration in a judicial action against any person or other entity violating or attempting to violate these Restrictive Covenants; provided, however, that no violation of these Restrictive Covenants shall result in a forfeiture or reversion of title. In any enforcement action, an enforcing agency shall be entitled to a complete restoration for any violation, as well as any other judicial remedy such as civil or criminal penalties or an award of agency attorneys fees, to the extent such remedies are available under the applicable provisions of the Clean Water Act and/or the Rivers & Harbors Act of 1899, Section 10, and implementing regulations. Nothing herein shall limit the right of the Corps of Engineers to modify, suspend or revoke the NWP.

8. Notice to Government. Any permit application or request made to any governmental entity and affecting the Restricted Property shall expressly reference and include a copy (with the recording stamp) of this Declaration.

9. Property Transfers. Declarant shall include the following notice on all deeds, mortgages, plats, or any other legal instruments used to convey any interest in the Property (failure to comply with this paragraph does not impair the validity or enforceability of these Restrictive Covenants):

> NOTICE: This Property is Subject to Declaration of Restrictive Covenants Recorded at [insert book and page references, county(ies), and date of recording].

At least 30 days prior to conveyance of any interest in the Restricted Property, Declarant (to include any successor Declarant) shall notify the Corps of Engineers of such intended conveyance, providing the full names and mailing addresses of all Grantees. Notwithstanding the foregoing, the Corps of Engineers has been provided notice of, and has consented to, the conveyance of the Restricted Property from Declarant to Permittee.

10. Amendment. This Declaration may only be amended by a recorded document signed by the Declarant after written approval by the Corps of Engineers. Any amendment shall be consistent with the Corps of Engineers' model conservation restrictions at the time of amendment. Amendment shall be allowed at the discretion of the Corps of Engineers, in consultation with resource agencies as appropriate, and then only in exceptional circumstances. Mitigation for amendment impacts will be required pursuant to Corps of Engineers mitigation policy at the time of amendment. There shall be no obligation to allow an amendment.

11. Severability Provision. Should any separable part of these Restrictive Covenants be held contrary to law, the remainder shall continue in full force and effect.

IN WITNESS WHEREOF, the Declarant has duly executed this Declaration of Restrictive Covenants on the date written above.

IN THE PRESENCE OF:

Paul J. Constantine, Declarant	Joan H. Constantine, Declarant

JOINDER: Upon execution of this Joinder, the undersigned, Niagara Mohawk Power Corporation shall be a party to this Declaration of Restrictive Covenants, and acknowledges that it is the Permittee and performing party under the NWP, and that all responsibilities and obligations of Declarant hereunder are pursuant thereto. Upon acquiring title to the Restricted Property, Niagara Mohawk Power Corporation acknowledges that it shall be fully bound by, and subject to, all of the covenants, terms and conditions set forth herein as though an original party hereto and as the Declarant hereunder. Except as otherwise provided herein, this Joinder shall bind and inure to the benefit of and be enforceable by the undersigned and its successors and assigns.

Niagara Mohawk Power Corporation, Permittee

By:_____
Title:_____

Signature Acknowledgements to Follow

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

On this ____ day of _____in the year 2012, before me personally appeared PAUL J. CONSTANTINE personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed in 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 the instrument.

_____
NOTARY PUBLIC STATE OF NEW YORK

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

On this ____ day of _____in the year 2012, before me personally appeared JOAN H. CONSTANTINE personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed in the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
NOTARY PUBLIC STATE OF NEW YORK

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

On this ____ day of _____in the year 2012, before me personally appeared _____ personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed in 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 the instrument.

_____
NOTARY PUBLIC STATE OF NEW YORK

ATTACHMENT F

OPTION AGREEMENT

OPTION AGREEMENT

THIS OPTION AGREEMENT (this "Agreement") is made as of this 3rd day of April, 2012, by and between **NIAGARA MOHAWK POWER CORPORATION** d/b/a National Grid ("Grantee"), a New York corporation with its principal office and place of business at 300 Erie Boulevard West, Syracuse, New York 13202, and **PAUL J. CONSTANTINE and JOAN H. CONSTANTINE**, his wife, jointly ("Grantor") with an address of 2525 Route 9, Malta, NY 12020.

BACKGROUND

A. Grantor is the owner of certain real property commonly known and numbered as 1119 Goode Road in Milton, NY, being in total approximately 32.53 acres and described in a deed from Mark Higgins and Christine Higgins, his wife, to Grantor, dated March 17, 2009, and recorded with the Saratoga County Clerk's Office in Liber of Deeds 2009, Page 9238 (the "Property");

B. Grantee is presently engaged in development of a new 115 kV electric transmission line project (the "Project") and, in connection therewith, applicable governmental regulatory and/or permit-granting agencies and authorities have identified a need for Grantee to mitigate the Project's wetland impacts by means of designing, developing, constructing, operating, maintaining and monitoring a comprehensive wetland mitigation plan (the "Mitigation Plan"), which requires (among other things) the identification of a parcel of real property suitable for carrying out the Mitigation Plan as described above;

C. To meet its obligations with respect to the Mitigation Plan, Grantee desires to purchase a 13.8 +/- acre portion of the Property (the "Mitigation Parcel"), the approximate location of which is depicted on the sketch plan attached hereto as Exhibit A and incorporated herein; such purchase being ~~at Grantee's election as provided for herein of either (i)~~ the fee simple interest in the Mitigation Parcel, together with such associated rights and interests necessary to carry out the Mitigation Plan; ~~or, (ii) the grant of perpetual easement rights and/or the placement of perpetual deed restrictions on the Mitigation Parcel, together with such other rights and/or restrictions to the extent necessary to support the Mitigation Plan~~, as ultimately approved by such government agencies and authorities; and

D. Grantor has agreed to provide Grantee with an option, to be exercised in the Grantee's sole discretion, for the purchase of either such interest, all as more particularly described herein.

NOW THEREFORE, in furtherance of the foregoing, and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and the other mutual covenants and agreements herein contained, the parties hereby agree to the following terms and conditions:

1. **GRANT OF OPTION**: Grantor hereby grants to Grantee an option (the "Option") to purchase ~~either~~

A. the Mitigation Parcel in fee simple (the "Fee Interest"). For purposes hereof, the term "Fee Interest" shall mean all right, title and interest of Grantor, if any, in and to any land lying in the bed of any streets (open or proposed) adjoining the Mitigation Parcel; all rights, privileges, and easements which benefit the Mitigation Parcel; all buildings and improvements now located thereon (if any); all mineral, oil or gas rights; and all current permits, licenses, certificates, variances, waivers and approvals which benefit the Mitigation Parcel; ~~or~~

B. ~~perpetual easement rights in the Mitigation Parcel and, if required by applicable~~ governmental regulatory and/or permit-granting agencies and authorities, a declaration of conservation covenants and restrictions or other similar legal instruments to allow Grantee to carry out the Mitigation Plan (the "Easement Interest"). In general, it is anticipated that such instrument or instruments shall, among other things, (1) set forth permanent restrictions on the use and development rights within the Mitigation Parcel; (2) require preservation and/or enhancement of the ecological conditions of the Mitigation Parcel; (3) be recorded in the County real property records; and (4) be binding upon Grantor and its successors-in-title, provided, however, that Grantor would remain as the fee simple owner of the Mitigation Parcel, subject to the rights and restrictions described, in general, above. Enhancement measures may include, but may not be limited to, plantings of trees and other vegetation; and restrictions may include, but may not be limited to, prohibitions against access by ~~motor vehicles, timber removal, construction of buildings or other improvements, disturbance of soils and waters, filling, grading and/or dumping~~. It is anticipated that third parties (such as applicable regulatory agencies or qualified conservation organizations) would be granted permanent rights of access and entry upon the Mitigation Parcel for purposes of ensuring adherence to the terms and conditions of the Mitigation Plan, but it shall not be open to the public.

2. **TERM OF OPTION:** The term of the Option shall commence as of the date hereof and shall terminate, if not extended or exercised by Grantee as hereinafter set forth, one (1) year from the date hereof (the "Term"). Grantee shall have a one (1) time right to extend the Term for a period of up to six (6) months upon written notice to Grantor, delivered no later than the expiration of the initial Term and the payment of an additional, nonrefundable deposit of [redacted] made payable to Grantor.

3. **PURCHASE PRICE:** The purchase price to be paid at Closing, as defined below, for the Fee Interest or Easement Interest shall be [redacted] (the "Purchase Price") of which [redacted] (the "Option Payment") shall be paid to Grantor upon the full execution and delivery of this Agreement. The Option Payment shall be immediately nonrefundable to Grantee (subject to the terms of Section 8, below), but shall be applied to the Purchase Price at Closing, with the balance of the Purchase Price to be paid at Closing.

4. **INSPECTIONS; PROPERTY CONDITION**: At its sole expense, Grantee, its agents, employees, consultants, contractors, and all other necessary third parties, shall have the right to access, inspect and investigate the Mitigation Parcel at any time up until the date of Closing. Investigations may include, without limitation, surveys, soil tests, subsurface investigations, soil borings, environmental studies, wetlands delineations, wildlife habitat assessments, engineering studies, title examination and any other such investigations as Grantee may deem reasonably necessary. Such access shall include the right to trim, cut and remove tree limbs and small trees to allow personnel and equipment access to the Mitigation Parcel to the extent necessary to carry out any investigations described herein. Grantee shall provide reasonable notice to Grantor with respect to the timing and frequency of such investigations. Grantee agrees to restore the Property to substantially its original condition once its investigations and required access are complete. From and after the date hereof and at all times during with this Agreement remains in force and effect, Grantor agrees that it shall neither make nor permit to be made any changes to the condition of the Mitigation Parcel, nor shall Grantor suffer or permit any changes to the state of title, including, without limitation, the granting of any new easements, leases or mortgages without Grantee's prior written consent, in Grantee's sole discretion.

5. **EXERCISE OF OPTION**: Grantee may exercise this Option at any time during the Term. In the event Grantee elects to exercise the Option, Grantee shall do so by sending Grantor written notice of the

exercise (the "Notice") specifying the Closing Date and any other terms and conditions for the Closing. It is the express intention of the parties that the exercise of the Option, ~~including the election between conveyance of the Mitigation Area by Fee Interest or Easement Interest,~~ shall be at the sole and absolute discretion of Grantee, and nothing herein shall create an obligation for Grantee to exercise the Option. In the event that Grantee does not exercise the Option before the expiration of the Term, the Option Payment shall be retained by Grantor as consideration for this Option free of all claims of Grantee, and neither party shall have any further rights or claims against the other. ~~In the event that Grantee exercises the Option and elects to acquire the Easement Interest, such Notice shall be accompanied by proposed documents necessary to effectuate the~~ grant of such Easement Interest, prepared by Grantee in a reasonable and customary form, having been preliminarily approved by the applicable regulatory agencies. Grantor shall thereafter have a period of twenty (20) days to confirm that such proposed documents substantially conform with the terms and conditions set forth herein, after which such documents shall be deemed approved. If Grantor disapproves such proposed documents, Grantee may, at its sole option, elect to either (i) terminate this Option or (ii) ~~acquire the Fee Interest or (iii) dispute such disapproval and pursue such rights and remedies as Grantee shall have hereunder.~~

6. **BOOKS AND RECORDS**: Upon its acceptance of this Agreement, Grantor shall make available to Grantee, to the extent in Grantor's possession, any existing reports, surveys, plans and records related to the Mitigation Parcel or the Property of which it is a part, together with copies of any existing contracts, leases, licenses or permits associated with the Mitigation Parcel.

7. **CLOSING**: The closing (the "Closing") shall occur thirty (30) days following the date of the Option Notice, unless otherwise provided in the Option Notice. At Closing, Grantor shall convey the following:

(a) the Fee Interest, in the form of good and marketable fee simple title in and to the Mitigation Parcel, by sufficient warranty deed running to the Grantee, in form and substance reasonably satisfactory to the Grantee, subject only to Permitted Encumbrances as defined below.

~~or,~~

~~(b) the Easement Interest in the form of a grant of easement rights and as necessary, a declaration of~~ conservation covenants and deed restrictions or other similar legal instrument, ~~in form and substance~~ reasonably satisfactory to the Grantee, other third-party easement holders as applicable, and jurisdictional governmental permitting agencies, conveying good and marketable easement interest in and to the Mitigation ~~Parcel, subject only to Permitted Encumbrances, as defined below;~~

and,

(b) In connection with the conveyance of either the Fee Interest ~~or the Easement Interest~~, Grantor shall deliver at Closing full possession of the Mitigation Parcel, free of all tenants, occupants, lease agreements and lease obligations and all personal property, and in the same condition it is now unless otherwise assented to by Grantee in writing.

"Permitted Encumbrances" shall mean (i) the provisions of local building and zoning laws, but not any violations thereof; (ii) such real estate taxes for the then current fiscal year as are not due and payable on the Closing Date (said date to be defined in the Option Notice); (iii) any liens for municipal betterments assessed after the date of this agreement; and (iv) encumbrances of record, provided that said encumbrances are not objected to by Grantee in the Option Notice and/or do not unreasonably interfere with the Grantee's intended use of the Premises, in the Grantee's sole discretion. Prior to Closing, at no cost to Grantee, the parties shall work cooperatively to make such arrangements and take such steps as they shall mutually agree to clear any and all encumbrances, as determined necessary by the Grantee in its sole discretion, impacting the Mitigation Parcel, including, without limitation, taking steps to obtain releases, consents, and/or

subordinations of any lessees, assignees, mortgagees, lienors or other parties with interests in the Mitigation Parcel. If for any reason, Grantor shall be unable to deliver a good and marketable fee simple interest ~~or easement interest~~ free from encumbrances at Closing as aforesaid, then, at Grantee's sole option, all obligations of the parties hereto shall cease and this Agreement shall be null and void and neither party shall have any further rights or claims against the other;

If Grantee elects to exercise the Option to acquire the Fee Interest, Grantee shall be responsible for the application and costs associated with any required property subdivisions, provided that Grantor shall cooperate fully and in good faith with Grantee in any required subdivision application and review process, and Grantee shall agree to co-sign any and all required applications, permits or other documents necessary to complete the legal subdivision of the Mitigation Parcel from the remainder of Grantor's Property.

If Grantee elects to exercise the Option to acquire either the Fee Interest ~~or the Easement Interest~~ in the Mitigation Parcel, Grantee shall be responsible for the costs of legal fees required for the drafting, preparing and recording of said grant, including any activities required to establish the boundaries of the Mitigation Parcel. However, Grantor agrees to cooperate fully with Grantee, other third-parties and government agencies involved in the review and approval of the Fee Interest ~~or Easement Interest~~, as well as co-sign all required applications, permits or other documents. ~~After Closing, and expressly intended to~~ survive this Agreement and the grant of the Easement Interest, Grantee, its successors, heirs and assigns agree to in good faith abide by the terms and conditions of the ~~Easement~~ Interest (including negative use and/or activity limitations and restrictions, ~~express~~ or implied) in the continued ownership of their underlying fee interest in the Mitigation Parcel, including but not limited inconsistent recreational, agricultural or development uses and activities.

Grantee shall be solely responsible for all expenses associated with the implementation of the wetlands Mitigation, unless such expenses related to a violation by Grantor of the terms and conditions of this Option or the Fee Interest ~~or Easement Interest~~ conveyance documents.

In addition, at Closing, each party shall deliver to the other party or the title company, if any, such duly executed and acknowledged or verified certificates, affidavits, and other usual closing documents respecting the power and authority to perform the obligations hereunder and any other standard closing documents necessary to complete the transactions contemplated herein.

8. **GRANTOR'S DEFAULT**: If Grantee has performed all of its obligations under this Agreement, but Grantor has breached its covenants and agreements hereunder or has failed or refused to consummate the conveyance of the Fee Interest ~~or Easement Interest~~ as provided for herein after exercise of the Option by Grantee, then Grantee shall give Grantor notice of such event and Grantee shall be entitled to receive a refund of the Option Payment and to pursue any other remedies available, at law or in equity, including specific performance of this Agreement.

9. **CONFIDENTIALITY**: This Agreement shall be confidential and no disclosure of its contents shall be made to any third party (except the parties' respective counsel or except as may be required by law or by the governmental agencies and authorities requiring the implementation of the Mitigation Plan), nor shall this document be filed or recorded in or under any applicable county registry of deeds or land records. Notwithstanding the foregoing, the parties hereto agree to execute a notice of option in recordable form in compliance with applicable law, and Grantee shall record said notice of option with the Clerk's Office as soon as reasonably practicable after the date hereof.

The submission of a draft of this Agreement or a summary of some or all of its provisions does not constitute an offer. Neither the Grantee nor the Grantor shall be legally obligated with respect to this Agreement unless and until this Agreement has been executed by both the Grantee and the Grantor and fully executed copies have been delivered to each.

IN WITNESS WHEREOF, the parties hereto have accepted and agreed to this Agreement the day and year first above written.

GRANTOR:

PAUL J. CONSTANTINE
AND JOAN H. CONSTANTINE

By: _____
Paul J. Constantine

And,

By: _____
Joan H. Constantine

Jointly

GRANTEE:

NIAGARA MOHAWK POWER CORPORATION

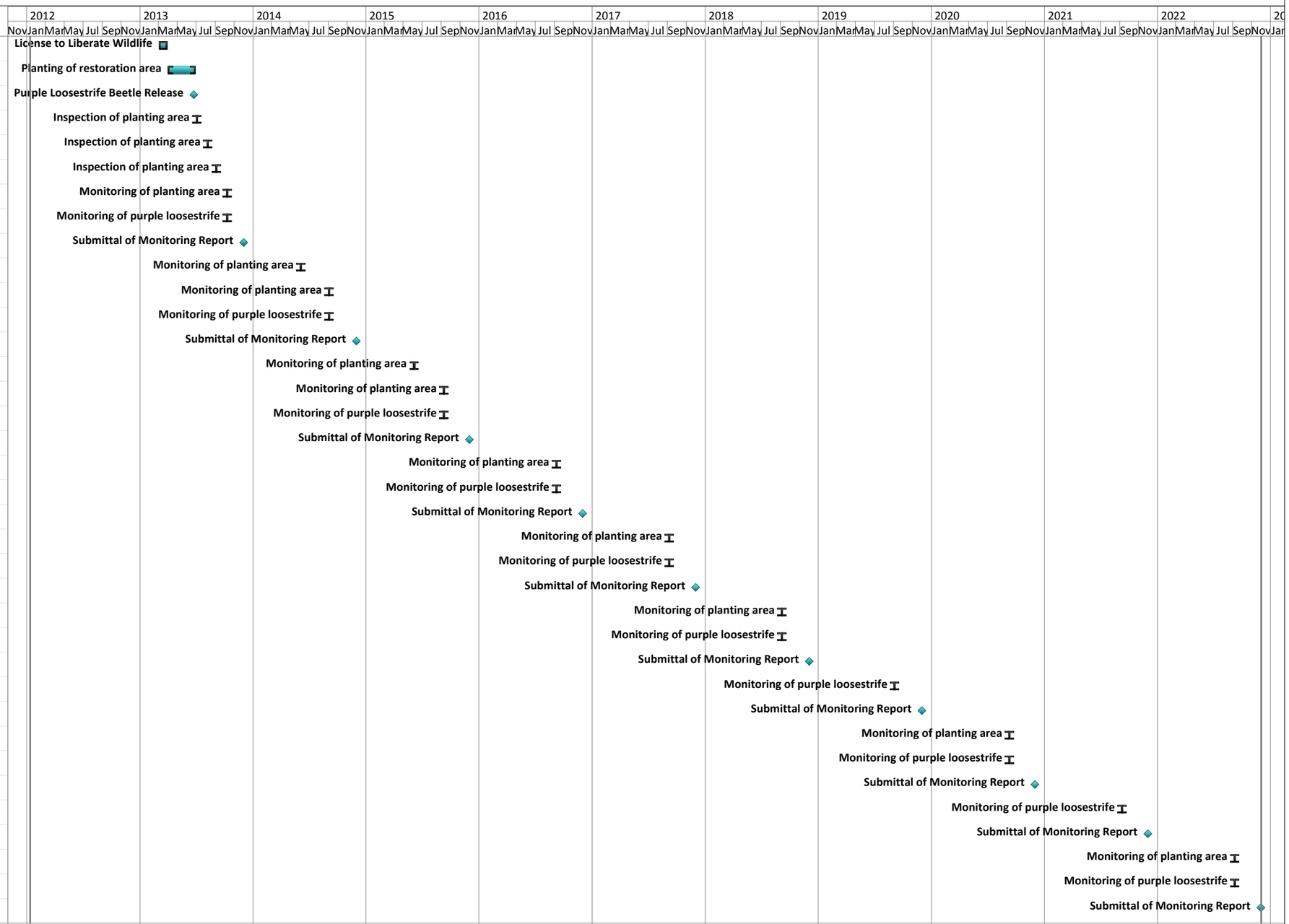
By: _____
Shannon Larson
Authorized Representative

ATTACHMENT G

WETLAND MITIGATION SCHEDULE

Spier Falls-Rotterdam New 115kV Transmission Project
Wetland Mitigation Schedule

ID	Task Name	Duration	Start	Finish
1	License to Liberate Wildlife	4 wks	Mon 3/4/13	Fri 3/29/13
2	Planting of restoration area	65 days	Mon 4/1/13	Fri 6/28/13
3	Purple Loosestrife Beetle Release	0 days	Mon 6/24/13	Mon 6/24/13
4	Inspection of planting area	1 wk	Mon 7/1/13	Fri 7/5/13
5	Inspection of planting area	1 wk	Mon 8/5/13	Fri 8/9/13
6	Inspection of planting area	1 wk	Mon 9/2/13	Fri 9/6/13
7	Monitoring of planting area	1 wk	Mon 10/7/13	Fri 10/11/13
8	Monitoring of purple loosestrife	1 wk	Mon 10/7/13	Fri 10/11/13
9	Submittal of Monitoring Report	0 days	Mon 12/2/13	Mon 12/2/13
10	Monitoring of planting area	1 wk	Mon 6/2/14	Fri 6/6/14
11	Monitoring of planting area	1 wk	Mon 9/1/14	Fri 9/5/14
12	Monitoring of purple loosestrife	1 wk	Mon 9/1/14	Fri 9/5/14
13	Submittal of Monitoring Report	0 days	Mon 12/1/14	Mon 12/1/14
14	Monitoring of planting area	1 wk	Tue 6/2/15	Mon 6/8/15
15	Monitoring of planting area	1 wk	Mon 9/7/15	Fri 9/11/15
16	Monitoring of purple loosestrife	1 wk	Mon 9/7/15	Fri 9/11/15
17	Submittal of Monitoring Report	0 days	Tue 12/1/15	Tue 12/1/15
18	Monitoring of planting area	1 wk	Mon 9/5/16	Fri 9/9/16
19	Monitoring of purple loosestrife	1 wk	Mon 9/5/16	Fri 9/9/16
20	Submittal of Monitoring Report	0 days	Thu 12/1/16	Thu 12/1/16
21	Monitoring of planting area	1 wk	Mon 9/4/17	Fri 9/8/17
22	Monitoring of purple loosestrife	1 wk	Mon 9/4/17	Fri 9/8/17
23	Submittal of Monitoring Report	0 days	Fri 12/1/17	Fri 12/1/17
24	Monitoring of planting area	1 wk	Mon 9/3/18	Fri 9/7/18
25	Monitoring of purple loosestrife	1 wk	Mon 9/3/18	Fri 9/7/18
26	Submittal of Monitoring Report	0 days	Mon 12/3/18	Mon 12/3/18
27	Monitoring of purple loosestrife	1 wk	Mon 9/2/19	Fri 9/6/19
28	Submittal of Monitoring Report	0 days	Mon 12/2/19	Mon 12/2/19
29	Monitoring of planting area	1 wk	Mon 9/7/20	Fri 9/11/20
30	Monitoring of purple loosestrife	1 wk	Mon 9/7/20	Fri 9/11/20
31	Submittal of Monitoring Report	0 days	Tue 12/1/20	Tue 12/1/20
32	Monitoring of purple loosestrife	1 wk	Mon 9/6/21	Fri 9/10/21
33	Submittal of Monitoring Report	0 days	Wed 12/1/21	Wed 12/1/21
34	Monitoring of planting area	1 wk	Mon 9/5/22	Fri 9/9/22
35	Monitoring of purple loosestrife	1 wk	Mon 9/5/22	Fri 9/9/22
36	Submittal of Monitoring Report	0 days	Thu 12/1/22	Thu 12/1/22



Project: Wetland Mitigation Sched
Date: Thu 1/12/12

Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only
Split	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress