

Wetland Delineation Report for the
Site Specific Environmental Assessment for the
Proposed Western New York National Cemetery

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Table of Contents

1. Introduction..... 2
1.1. Project Overview 2
1.2. Regulatory Background 2
2. Site Description and Location..... 2
2.1. Physiography..... 2
2.2. Hydrology 3
2.3. Land Use 3
2.4. Wetland Ecosystems 3
2.5. Vegetation 3
2.6. Soils 4
3. Methodology 5
3.1. Site Resources Review..... 5
3.2. Field Surveys 5
3.2.1. Project Survey Area 5
3.2.2. Wetland Surveys 5
3.2.3. Stream Surveys 7
3.2.4. Mapping Procedures 7
4. Results and Discussion 7
4.1. Ecological Communities and Vegetation..... 7
4.2. Soils 8
4.3. Hydrology 8
4.4. Wetlands 8
4.5. Streams..... 9
5. Discussion 10
6. References..... 11

List of Tables

Table 1 Soils Mapped Within the Study Area
Table 2 Wetland Summary

LIST OF FIGURES

Figure 1 Site Location Map
Figure 2 Wetland and Stream Delineation
Figure 3 Soils

LIST OF ATTACHMENTS

Attachment 1 2015 Wetland Delineation Representative Photographic Log
Attachment 2 2015 Wetland Data Sheets

1. Introduction

On behalf of Mabbett & Associates, Inc., AECOM has prepared this Wetland Delineation Report for the U.S. Department of Veterans Affairs (VA) proposed Western New York National Cemetery (Project). The purpose of the Project is to develop a new National Cemetery and ancillary facilities for veterans and their eligible family members in western New York.

The Project Study Area for this Wetland Delineation Report is an approximately 271-acre multiple land parcel site located at 1232 Indian Falls Road in the Town of Pembroke, Genesee County, New York (Figure 1). The purpose of this report is to identify regulated aquatic resources within the Project Study Area and to provide the results of the delineation along with related information for the United States Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) to verify wetland delineation boundaries and to make and document Jurisdictional Determinations of the wetlands within the Project Study Area.

1.1. Project Overview

The purpose of this Wetland Delineation Report is to describe the methodology and results of the field investigation to identify and delineate aquatic resources that may be subject to regulation under federal and/or state jurisdiction at the Project Study Area. A secondary purpose of this report is to characterize those aquatic resources found and documented at the Project Study Area. The need for this wetland delineation arose because wetlands were identified during a preliminary wetland evaluation at the site at the time when the VA was still evaluating the adequacy of this site and two others for a new Western New York National Cemetery.

1.2. Regulatory Background

Article 24 of the Environmental Conservation Law, commonly known as the Freshwater Wetlands Act, protects New York's freshwater wetlands. Pursuant to Article 24, wetlands greater than 12.4 acres or wetlands of any size that possess unique qualities are regulated by New York State. In an attempt to preserve and protect wetlands, New York regulates areas adjacent to wetlands. Those areas are defined as land or water that is outside a wetland and within 100 feet of the wetland's boundary.

The USACE has regulatory jurisdiction over waters of the United States including wetlands pursuant to Section 404 of the Clean Water Act and Navigable Waters of the United States pursuant to Section 10 of the 1899 Rivers and Harbors Act.

2. Site Description and Location

2.1. Physiography

The Project Study Area is located within the Ontario-Erie Plain and Finger Lakes Region, which encompasses approximately 9,960 square miles. Most of this area is in the Eastern Lake Section of the Central Lowland Province of the Interior Plains. Bedrock underlying this area consists of alternating beds of limestone, dolomite, sandstone and shale of Ordovician to Devonian age. Most of the ground surface of this area consists of glacial till or lake sediments.

The 271 acre Study Area is comprised of three land parcels (Figure 1). Parcel 1 is approximately 132 acres and is located on the west side of the study area. Parcel 2 is in the central section of the study area and is approximately 62 acres. Parcel 3 is located on the east side of the study area and is approximately 77 acres in size. Parcel 1 includes a large agriculture field in the north (planted with beans), a forested complex in the central and western sections, a reverting old field (saturated soils) in the east central section, and old reverting fields and shrublands in the southern section (Figure 1). Parcel 2 is predominantly successional old field transitioning to shrubland with minor areas of forested growth. Parcel 3 contains two (2) agriculture fields (corn and carrots) and two (2) shrub/forest mixed areas in the central and southern sections. There is a swale, classified as an intermittent stream, running through the middle of Parcel 3. The swale runs east to west until it reaches the edge of the parcel and then heads north along the western parcel boundary, where it then goes under Indian Falls Road and eventually into Tonawanda Creek.

2.2. Hydrology

The Project Study Area is located within the Galloway Swamp-Tonawanda Creek watershed (HUC 041201040301) and Middle Murder Creek watershed (HUC 041201040202) (Figure 1).

2.3. Land Use

The site is dominated by past and present agricultural activities. Much of the site is abandoned agricultural fields reverting to old field successional growth. There are three (3) active agricultural fields on site. Two (2) are in Parcel 3, planted with corn and carrots, and the 3rd is in the northern section of Parcel 1 planted with beans. The major forested components on site are associated with wetland 2 in Parcel 1, and with wetland 3 and wetland 6 in Parcel 3. The site topography is relatively flat (Figure 1). The parcel is bounded by Allegany Road to the west, Indian Fall Road to the north, New York State Thruway I-90 to the south and undeveloped natural land to the east.

2.4. Wetland Ecosystems

Wetlands are an abundant resource within this region due to vegetative ecotypes, climactic conditions and landscape diversity. In this region, wetlands occur on the shores of lakes and ponds, broad flats on former glacial plains, depressions and blocked drainages formed by morainal deposits, outwash deposits of sand and gravel where groundwater discharges or is often near the surface, and deposits of unsorted glacial till that have created relatively impermeable subsoils on flats and slopes. The region also contains large river systems that periodically flood low lying areas creating floodplain wetlands of various types (USEPA-USACE 2011).

2.5. Vegetation

The presence and distribution of local vegetative communities is attributable to the socioeconomic development within the rural residential and agricultural landscape of the Town of Pembroke. The dispersion and density of land cover within this area is indicative of adjacent land use, development, and existing natural resources. The Town of Pembroke is predominantly farmland and an upland forest/wetland mosaic with some residential and commercial areas.

2.6. Soils

Soil information was obtained from the United State Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) (USDA-NRCS 2009). A list of soils present within the Project Study Area is presented in Table 1. Soils mapped in the Project Study Area by the NRCS are indicated in Figure 3. The dominant soils mapped in the Project Study Area include poorly drained Canandaigua silt loam, moderately well drained Phelps gravelly loam, well drained Ontario loam and somewhat poorly drained Ovid silt loam.

Poorly and very poorly drained soils are hydric soils. These areas typically support wetland plant communities. Areas mapped with somewhat poorly drained soils have the potential for hydric soil inclusions. Wetland areas can be found in association with these units.

Table 1. Soils Mapped within the Project Study Area

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class
ApA	Appleton silt loam, 0 to 3 percent slopes	Somewhat poorly drained
CaA	Canandaigua silt loam, 0 to 2 percent slopes	Poorly drained
DuB	Dunkirk silt loam, 2 to 6 percent slopes	Well drained
FpA	Fredon gravelly loam, 0 to 3 percent slopes	Somewhat poorly drained
GnA	Galen very fine sandy loam, 0 to 2 percent slopes	Moderately well drained
GnB	Galen very fine sandy loam, 2 to 6 percent slopes	Moderately well drained
HaA	Halsey silt loam, 0 to 4 percent slopes	Very poorly drained
Ld	Lamson very fine sandy loam	Poorly drained
Le	Lamson mucky very fine sandy loam	Very poorly drained
LmA	Lima silt loam, 0 to 3 percent slopes	Moderately well drained
LmB	Lima silt loam, 3 to 8 percent slopes	Moderately well drained
NgA	Niagara silt loam, 0 to 2 percent slopes	Somewhat poorly drained
OnA	Ontario loam, 0 to 3 percent slopes	Well drained
OnB	Ontario loam, 3 to 8 percent slopes	Well drained
OvB	Ovid silt loam, 3 to 8 percent slopes	Somewhat poorly drained
PhA	Palmyra gravelly loam, 0 to 3 percent slopes	Well drained
PhB	Palmyra gravelly loam, 3 to 8 percent slopes	Well drained
PhC	Palmyra gravelly loam, 8 to 15 percent slopes	Well drained
PsA	Phelps gravelly loam, 0 to 3 percent slopes	Moderately well drained

Table 1, cont'd. Soils Mapped within the Project Study Area

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class
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PsB	Phelps gravelly loam, 3 to 8 percent slopes	Moderately well drained
RsA	Romulus silt loam, 0 to 3 percent slopes	Poorly drained
Um	Udorthents, smoothed	Well drained

3. Methodology

3.1. Site Resources Review

A desktop analysis was conducted for the Project Study Area using existing information from federal and state agency databases, published literature review and state agency correspondence. The analysis was conducted to determine the presence and extent of biological and natural resources potentially occurring in the Project vicinity.

Vegetation cover types as defined by United States Geological Survey (USGS) Gap Analysis Program (GAP) Level 3 New York land cover data (USGS 2010b) were used to characterize vegetation communities at the site. Aerial photography was compared to GAP data to detect changes in vegetation structure and density associated with clearing of forested areas, development, restoration and land uses. Dominant vegetation communities were characterized according to the classification scheme presented in Ecological Communities of New York State, Second Edition (Edinger et al. 2002).

A review of existing information from NYSDEC Freshwater Wetland maps (CUGIR 2002) and United States Fish and Wildlife Service NWI wetland maps (USFWS 2009) was conducted to locate potential jurisdictional waters of the U.S. including wetlands (Figure 3). Current aerial imagery (NAIP 2009) and information from the NRCS soil survey (USDA-NRCS 2009) supplemented the review for potential wetland areas.

3.2. Field Surveys

3.2.1. Project Survey Area

The wetland delineation and surface waters survey in the Project Study Area were conducted by AECOM biologists in April, August and September 2015. The Project Study Area is shown on Figure 1.

3.2.2. Wetland Surveys

Wetlands in the Project Study Area were delineated using the routine methodology set forth in the USACE Wetland Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0) (USACE 2012). A three parameter approach is used with these methods: vegetation, soils, and hydrology are assessed to identify the presence of wetlands. Initial boundaries of wetlands are established through visual assessment of vegetation and hydrology. Soils are assessed to determine the final boundary. For each plant community, sampling plots were established and vegetation, soils and hydrology were characterized. The sections below describe the results of this sampling. Wetlands were determined to be present if the sample plots exhibited the qualifying criteria of a dominance of hydrophytic vegetation, hydric soils and wetland

hydrology. The wetland determination for difficult or problematic wetlands was made utilizing guidance in Section 5 of the Northcentral and Northeast Supplement (USACE 2012).

For each delineated wetland, data recorded on the USACE Wetland Determination Data Forms included:

- Sketch map of each wetland feature
- Drainage patterns
- Sample plot locations
- Photo point locations and direction of photo
- Plant, soil, hydrology and other relevant information to support the determination

Photographs taken for each wetland area investigated are presented in Attachment 1. The USACE Wetland Determination and Stream Data Forms are presented in Attachment 2. Field-delineated wetlands and streams are presented in Figure 2. The following sections describe the methods used to evaluate vegetation, soils and hydrology.

Vegetation

For each sample plot, herbaceous, shrub, tree and vine strata were analyzed and characterized based on absolute cover, plant dominance and plant indicator status. The percent cover by species was determined using a 5-foot radius for the herbaceous layer, a 15-foot radius for the shrub/sapling layer, and 30-foot radii for tree and vine strata where present. The wetland indicator status was determined for each dominant plant species based on the USACE National Wetland Plant List (Lichvar 2013) and the 2014 Update of Wetland Ratings (Lichvar 2014). Problematic areas of vegetation with irregular shapes or sizes were evaluated using an adjusted survey area but still with the same square footage: 2,827 sq. ft. for a 30-foot radius plot (tree) and 707 sq. ft. for a 15-foot radius plot (shrub/sapling). For potential wetland areas that were smaller than the recommended sampling plot areas, the area was considered on the whole due to the limits of square footage.

Soils

Two soil test pits were dug at each investigated wetland area with a “sharpshooter” (5” drain tile) shovel to a maximum depth of 20 inches. The first soil test pit was placed in an area of readily distinguishable wetland plant communities. The second soil pit was placed in an adjacent upland area. The results of the soil survey were used to verify and document the boundary between wetlands and adjacent uplands. Soil profiles were inspected for the presence of hydric soil indicators as described in the USACE Northcentral and Northeast Regional Supplement (USACE 2012). A Munsell Soil Color Chart (Macbeth 1994) was used to define the soil hue, value and chroma of the samples collected from each test pit.

Hydrology

A visual assessment of primary and secondary wetland indicators was conducted at each wetland. In this region, primary wetland hydrology indicators include surface water, high water table, soil saturation, water-stained leaves, sediment deposits, drift deposits, algal mats or crust

and others. Secondary wetland hydrology indicators include surface soil cracks, moss trim lines, drainage patterns, oxidized rhizospheres on living roots, FAC-neutral test and others. The soil pits were observed for the presence and stabilization of an apparent high water table.

3.2.3. Stream Surveys

AECOM biologists evaluated surface waters in the Project Study Area following guidance provided in the USACE Jurisdictional Determination Form Instruction Guidebook, joint U.S. Environmental Protection Agency (USEPA) and USACE guidance regarding Clean Water Act (CWA) jurisdiction after Rapanos, and joint guidance on identifying waters protected by CWA (USEPA-USACE 2007, 2008, 2011).

A visual interpretation of the ordinary high water mark (OHWM), as defined by USACE (2005), was conducted for all streams and drainages. The stream bank was evaluated for physical characteristics established by the fluctuations of water to determine the OHWM. These characteristics included a clear, natural line impressed on the bank, shelving along the bank, changes in the character of the soil, disturbed vegetation, and the presence and location of debris in vegetation along the bank.

Stream characteristics such as stream width, water depth, substrate composition, bank vegetation, stream flow direction and Cowardin Classification (Cowardin et al. 1979) were recorded on Routine Data Forms (provided in Attachment 2).

3.2.4. Mapping Procedures

Wetland boundaries were identified and marked in the field with pink wetland delineation “surveyor” flagging tape. The wetland boundaries were surveyed using a Trimble Geo® XH™ Global Positioning System (GPS). This GPS unit generally possesses sub-meter accuracy with increased accuracy in open areas with little tree canopy. Factors including environmental (weather), topography, satellite positioning and user error can contribute to poor capture results. None of these factors influenced the data gathered during the delineation.

4. Results and Discussion

4.1. Ecological Communities and Vegetation

The density and dispersion of existing natural resources in the Project Study Area site is similar to that of the surrounding areas. The Town of Pembroke consists mostly of agriculture fields, forested uplands, and wetland complexes with some residential and commercial areas.

Wetlands delineated in the Project Study Area consisted of emergent (wet meadow), scrub/shrub and forested wetland plant communities. Wetland 2 and Wetland 3 have similar ecological communities and are located in areas mapped with NYSDEC wetlands. The emergent wetland areas were primarily dominated by cattail (*Typha latifolia*), willow (*Salix* spp.), reed canary grass (*Phalaris arundinacea*), sedges (*Carex* and *Scirpus* spp.) and sensitive fern (*Onoclea sensibilis*). Scrub-shrub wetland plant communities were dominated by red-osier dogwood (*Cornus sericea*) and willow as well as emergent species. The forested components of the wetlands include red

maple (*Acer rubrum*), silver maple (*Acer saccharinum*), green ash (*Fraxinus pensylvanica*) and willow.

No State or Federal listed rare, threatened or endangered species were observed during the field investigations. Further investigation for the presence of rare, threatened and endangered species or habitats within the project site occurred in May, August and September 2015. The results of that investigation will be presented in a separate biological assessment report currently in development.

4.2. Soils

Twenty-two soil units mapped by the NRCS occur within the Project Study Area, as listed in Table 2 and depicted in Figure 3. The dominant soils mapped in the delineated wetland areas are poorly drained (hydric) and somewhat poorly drained (potential for hydric soil inclusions) soils. Hydric soils are defined as soils that are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register 1994). The hydric criteria for soils in the Northcentral and Northeast Region of the United States have been updated in the Regional Supplement (USACE 2012). Soil characteristics can be important indicators of wetland and upland boundaries. This is especially useful in cases where potential wetland vegetation is lacking or has been removed or impacted. Although hydrophytic vegetation and wetland hydrology indicators must be confirmed before a wetland determination can be made, hydric soils information is useful in determining the potential presence of wetlands.

4.3. Hydrology

Local hydrology is influenced by seasonal pooling of storm and melt water, rainfall runoff and perched groundwater. Surface water observed during the field work in the Project Study Area included a very small open water section in the southwest corner of Wetland 1 and ponded water towards the center of the forested area in Wetland 2. The emergent wetlands in Wetland 2 in the central sections were ponded to a depth of approximately 2 inches and the small ponded area in the corner of Wetland 1 was about 6 inches in depth. Wetland 4 contained areas of open water up to approximately 8 inches in depth, and Wetland 5 contained an open water “swale” with water depth ranging from 4-24 inches. Wetland 3 and 6 did not possess any standing water at the time of documentation but signs of past pooled water including crack surface soil and sedimentation deposits were observed.

The most prevalent indicators of wetland hydrology in the delineated wetlands were Surface Water (A1), Saturation (A3), Inundation Visible on Imagery (B7), Hydrogen Sulfide Odor (C1), and Oxidized Rhizospheres on Living Roots (C3).

4.4. Wetlands

Six (6) wetlands totaling approximately 86.1 acres were delineated within the Project Study Area, as summarized in Table 2 and depicted in Figure 2.

Based on the results of the field survey and the review of topographic maps, aerial imagery, and hydrology data, it appears some of the wetland areas delineated have a hydrologic connection to adjacent off-site wetland areas, as describing in the comment field in Table 2.

Table 2. Wetland Summary for the Project Study Area

Wetland	Cowardin Classification ⁽¹⁾	NYSDEC Wetland	Parcel 1	Parcel 2	Parcel 3	Size in Project Study Area (acres approx.)	Comments
W1	PEM/PSS	-	0.3	16.5		16.8	Large shrubland wetland with a complex of historic agricultural swales.
W2	PFO/PSS/PEM	AK-14	42.0	4.6		46.6	Borders Alleghany Road to the west.
W3	PSS	AK-15	1.1	4.0	8.77	14.2	Attached hydrologically to NYSDEC AK-15 to the east.
W4	PFO/PSS	AK-14	2.8			3.1	Just south of Wetland 2, separated by a gravel access road.
W5	PFO/PSS	-	1.8			2.0	Connects to unnamed tributary of Murder Creek.
W6	PSS/PEM/PFO	-			3.4	3.4	Part of NWI wetland.
Total			48.0	25.1	12.2	86.1	

Notes:

1 – Cowardin et al. 1979

NA – Not applicable

4.5. Streams

An intermittent stream separates the two active agricultural fields in the eastern section of Parcel 3 where it flows east to west until it reaches the central successional old field and flows north along the western boundary of Parcel 3. This feature crosses Indian Falls Road via a culvert. This stream connects with Tonawanda creek (NYSDEC class B Stream) approximately .3 miles north of the site. Water was only found in the northern most reach near Indian Falls Road. A drainage ditch complex in Parcel 2 spreads throughout Wetland 1 and connects with the intermittent stream approximately 600 feet from Indian Falls Road. This was dry during the time of the survey.

One small ditch was observed along a hedgerow separating the north and south fields, as depicted on Figure 2. The ditch varies from 2 to 5 feet wide, 1 to 2 feet deep and is approximately 284 feet in length. The majority of the ditch is vegetated with emergent and shrubby plants with a few trees along the top of bank. This feature is likely a remnant of the past agricultural activity and does not meet the criteria for regulation.

Off the southern boundary of the study area is an un-named tributary to Murder Creek. This feature was observed in the field but not mapped since it was not part of the project study area. It is a medium sized man-made swale that runs parallel to NYS Thruway I-90 (approximately 10 feet wide and 1 foot deep). Wetland W-5 outfalls into this feature in the southwest corner of the study area via a small man-made drainage swale (2 to 3 feet wide and 0.5 to 1 foot deep) that runs parallel to Allegany Road.

5. Discussion

Field surveys for wetland delineations and water resources were conducted on April 28 and 29, August 26, 27, 28 and 31, and September 8, 2015, within the USDVANCA Project Study Area. The field surveys performed in April were on the western section (Parcel 1) and the August and September surveys were performed on the central and eastern sections (Parcels 2 & 3) (Figure 2). Six (6) wetlands totaling approximately 86.1 acres in size were delineated in the Project Study Area. One (1) intermittent stream was delineated on site.

Based on the field investigation and a review of aerial imagery, topographic maps and hydrologic data, the delineated wetlands appear to have a hydrologic connection to Waters of the U.S. and are therefore likely federal jurisdictional wetlands.

Wetland 2 is included in mapped NYSDEC Wetland AK-14. All of delineated Wetland 2 and 100-foot adjacent buffer area would likely be regulated by the NYSDEC. Due to close proximity to Wetland 2 and NYSDEC State Wetland AK-14, Wetland 4 may also be considered by the NYSDEC as part of the mapped Wetland AK-14 complex and fall under State jurisdiction. Wetland 3 is connected to NYSDEC Wetland AK-15 and may fall under State jurisdiction.

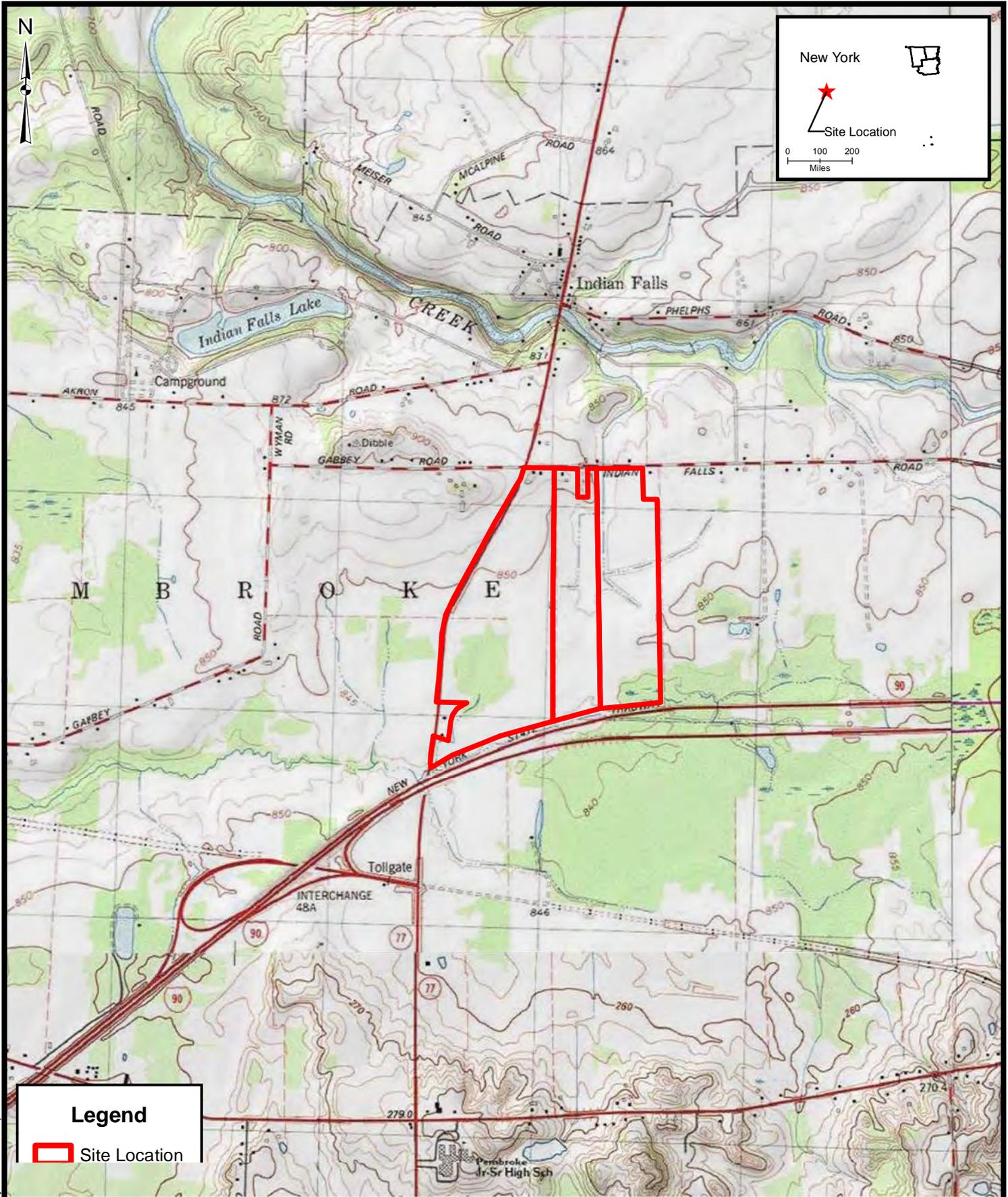
It is anticipated that wetlands permits and Jurisdictional Determination will be required from the NYSDEC and USACE via a Joint Application for Permit in accordance with NYSDEC Article 24-Freshwater Wetlands, and Section 401-Water Quality Certification, and Section 404 of the Clean Water Act.

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Figures



Legend

Site Location

Source:
 © 2013 National Geographic Society, i-cubed; 1:24,000-scale USGS Topographic Maps,
 Akron SE, Corfu NE, Oakfield SW, Alexander NW

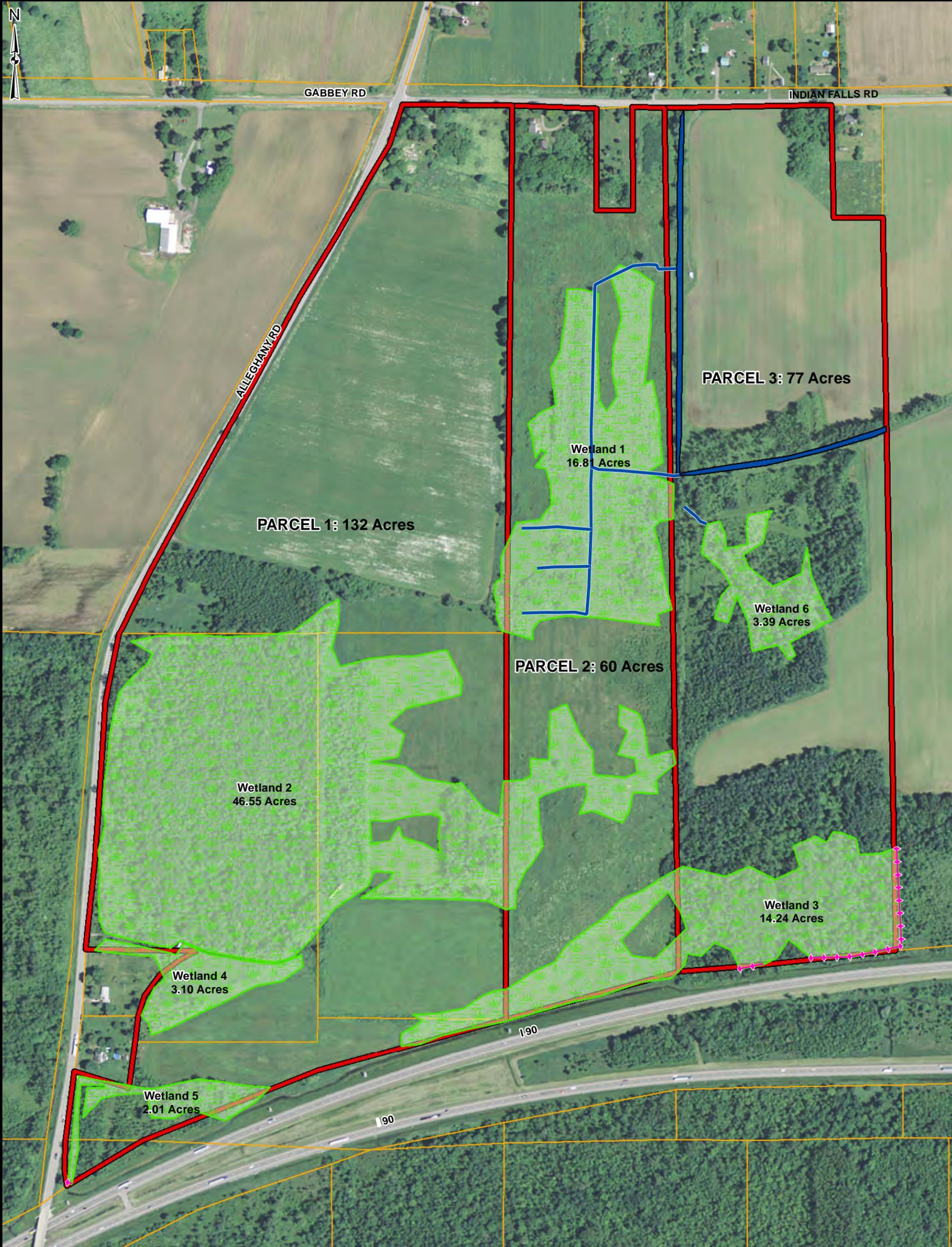
2,000 0 2,000 Feet

J:\Projects\60345076_VA\Cemetery\MISC\GIS\Maps\Site Location.mxd 9/14/2015 MDB



SITE LOCATION MAP
VA PROPOSED WESTERN NEW YORK
NATIONAL CEMETERY
PEMBROKE, NEW YORK

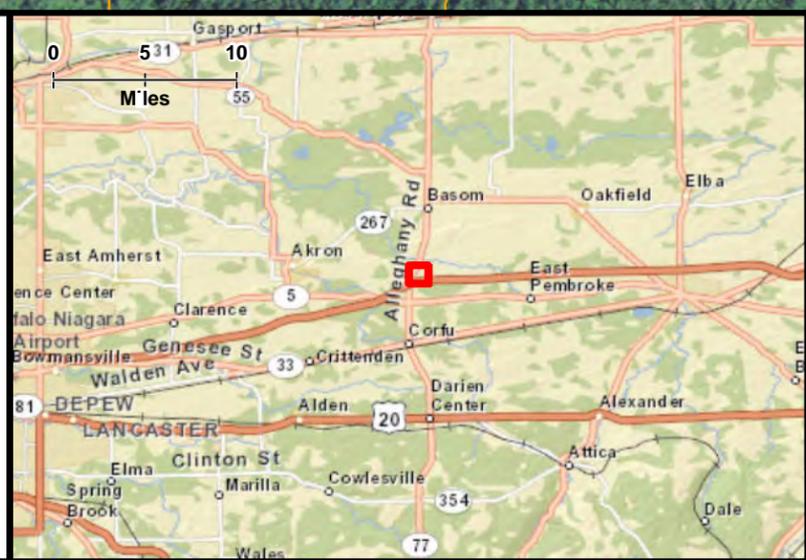
FIGURE 1



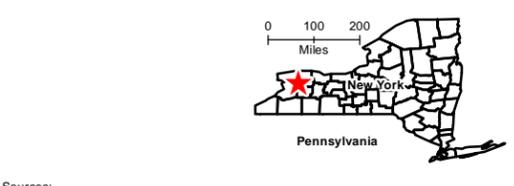
J:\Projects\60345076_VA Cemetery\MISC\GIS\Maps\Delimited\Wetlands_Porrait_091815.mxd 10/14/2015

- Legend**
- Swale
 - ◆— Wetland Continuation Line
 - Stream
 - Wetlands
 - Site Location
 - Parcel Boundary

Field Data Collection Information:
 - Data Collected on 4/28/15, 4/29/15, 8/26/15 - 8/31/15, 9/8/15
 - Boundary coordinates were collected using a Trimble GeoXH with ESRI's ArcPad
 - Data was Post-Processed using Trimble's GeoPathfinder Office



**WETLAND & STREAM DELINEATION
 VA PROPOSED WESTERN NEW YORK
 NATIONAL CEMETERY
 PEMBROKE, NEW YORK**

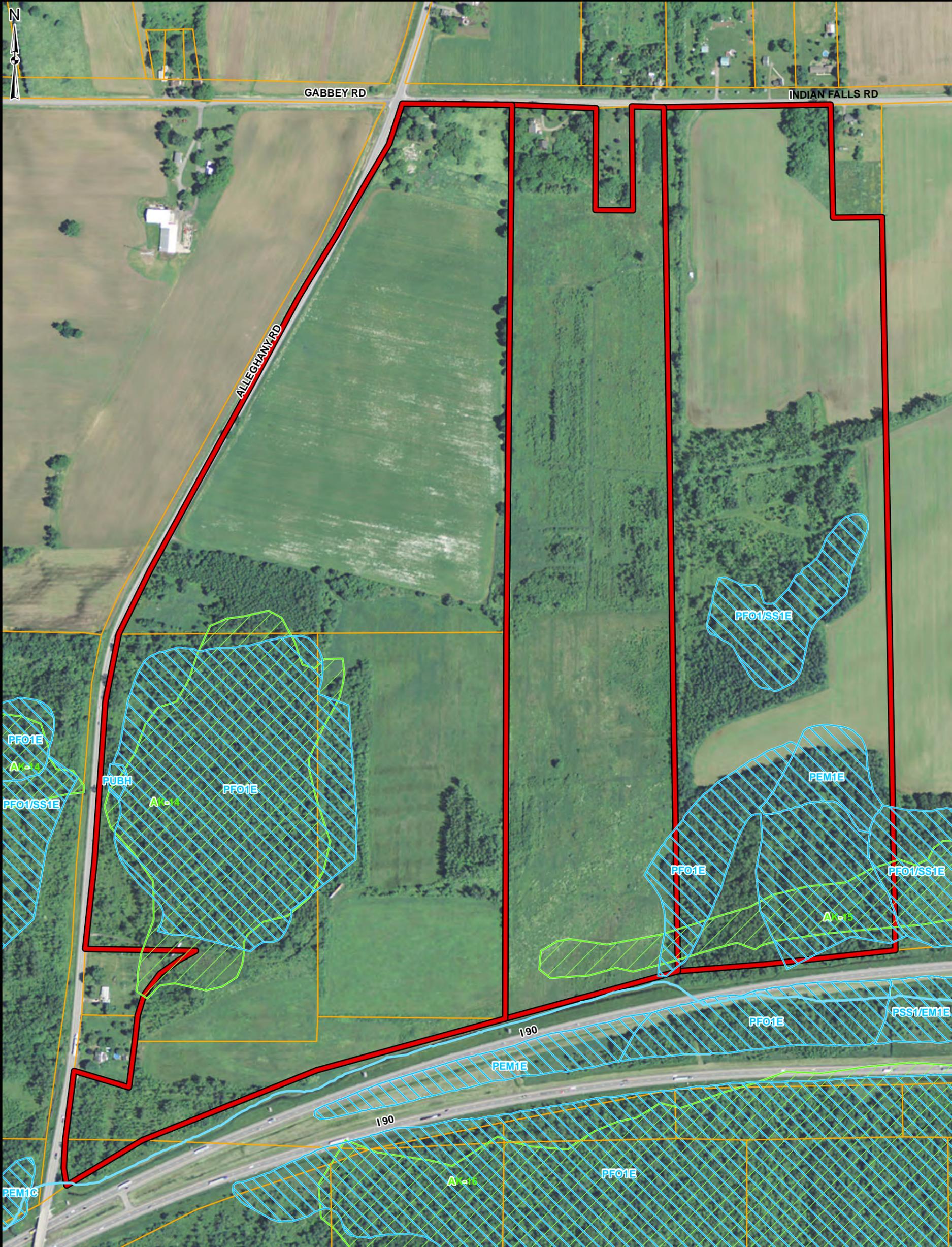


Sources:
 Aerial Photo: ESRI World Imagery, USDA Farm Service Agency National Agriculture Imagery Program 2013
 NYSDEC Wetlands and Streams: NYS GIS Clearinghouse, NYSDEC 2002
 USFWS Wetlands: USFWS National Wetlands Inventory 2014



FIGURE 2



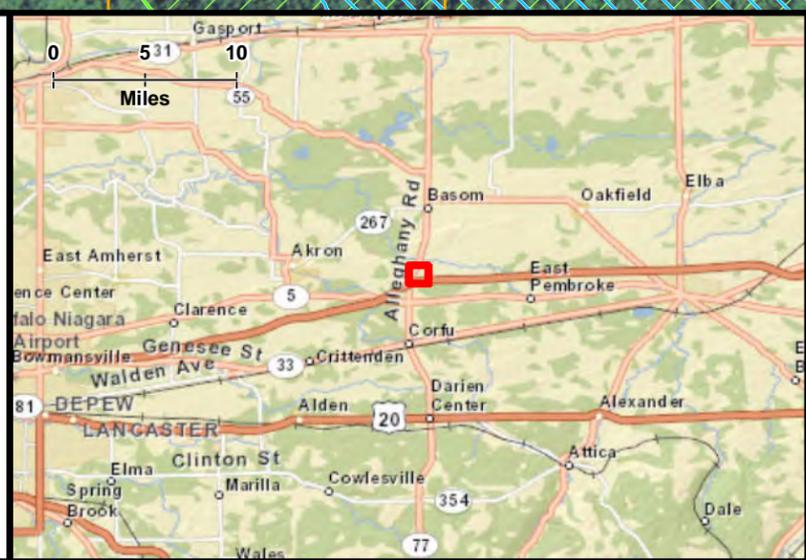


J:\Projects\60345076_VACemetery\MISC\GIS\Maps\DEC_NWI_Wetlands_Portrait.mxd 9/14/2015

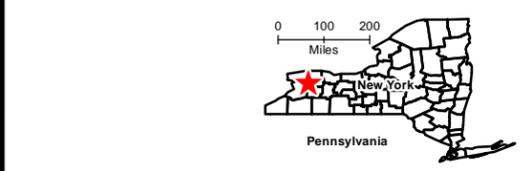
Legend

- NYSDEC Stream
- NYSDEC Wetlands
- USFWS NWI Wetlands
- Site Location
- Parcel Boundary

Field Data Collection Information:
 - Data Collected on 4/28/15, 4/29/15, 8/26/15 - 8/31/15, 9/8/15
 - Boundary coordinates were collected using a Trimble GeoXH with ESRI's ArcPad
 - Data was Post-Processed using Trimble's GeoPathfinder Office



**NWI & NYSDEC WETLANDS
 VA PROPOSED WESTERN NEW YORK
 NATIONAL CEMETERY
 PEMBROKE, NEW YORK**



Sources:
 Aerial Photo: ESRI World Imagery, USDA Farm Service Agency National Agriculture Imagery Program 2013
 NYSDEC Wetlands and Streams: NYS GIS Clearinghouse, NYSDEC 2002
 USFWS Wetlands: USFWS National Wetlands Inventory 2014

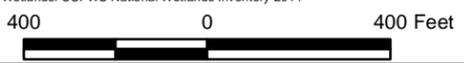
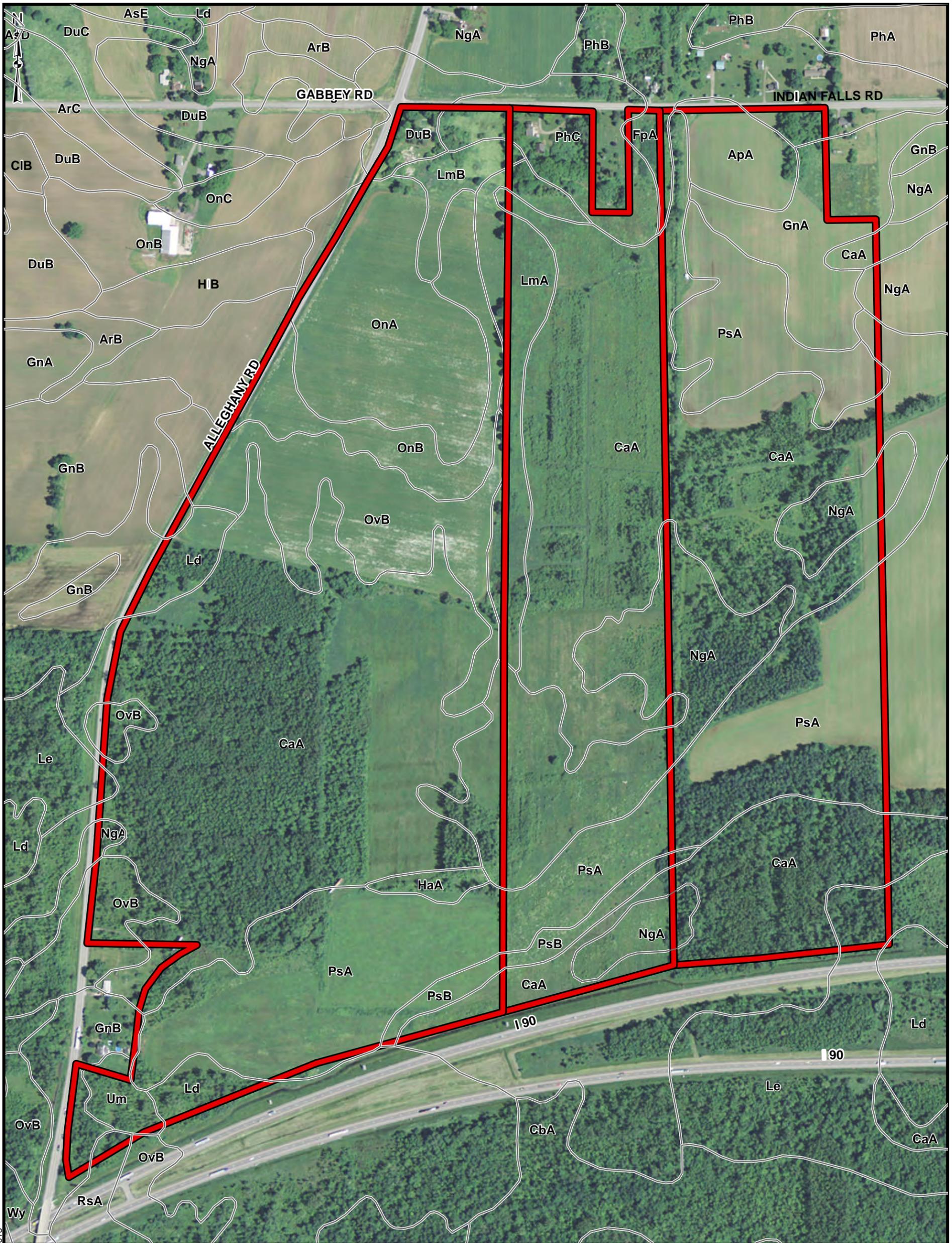


FIGURE 3





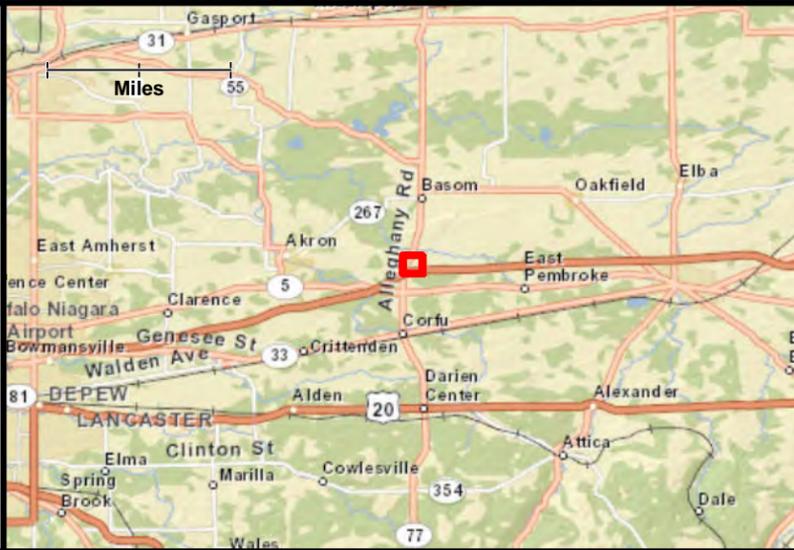
J:\Projects\60345076_VACemetery\MISC\GIS\Maps\Soils.mxd 9/14/2015

Legend

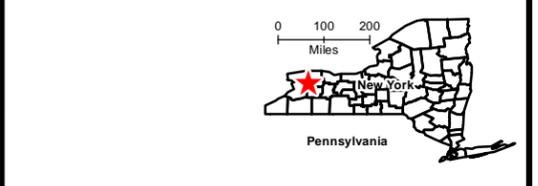
- Site Location
- Soil Boundary

Soils within Site Location:

- | Symbol | Description |
|--------|---|
| ApA | Appleton silt loam, 0 to 3 percent slopes |
| CaA | Canandaigua silt loam, 0 to 2 percent slopes |
| DuB | Dunkirk silt loam, 2 to 6 percent slopes |
| FpA | Fredon gravelly loam, 0 to 3 percent slopes |
| GnA | Galen very fine sandy loam, 0 to 2 percent slopes |
| GnB | Galen very fine sandy loam, 2 to 6 percent slopes |
| HaA | Halsey silt loam, 0 to 4 percent slopes |
| Ld | Lamson very fine sandy loam |
| Le | Lamson mucky very fine sandy loam |
| LmA | Lima silt loam, 0 to 3 percent slopes |
| LmB | Lima silt loam, 3 to 8 percent slopes |
| NgA | Niagara silt loam, 0 to 2 percent slopes |
| OnA | Ontario loam, 0 to 3 percent slopes |
| OnB | Ontario loam, 3 to 8 percent slopes |
| OvB | Ovid silt loam, 3 to 8 percent slopes |
| PhC | Palmyra gravelly loam, 8 to 15 percent slopes |
| PsA | Phelps gravelly loam, 0 to 3 percent slopes |
| PsB | Phelps gravelly loam, 3 to 8 percent slopes |
| RsA | Romulus silt loam, 0 to 3 percent slopes |
| Um | Udorthents, smoothed |



**SOILS MAP
VA PROPOSED WESTERN NEW YORK
NATIONAL CEMETERY
PEMBROKE, NEW YORK**



Sources:
Aerial Imagery: ESRI World Imagery, USDA Farm Service Agency National Agriculture Imagery Program 2013
Soils: USDA NCRS Geospatial Data Gateway 2015

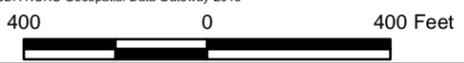


FIGURE 4



Attachment 1

PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No.
1

Date:
28April15

Description:

Wetland W-1



Photo No.
2

Date:
28April15

Description:

Upland area for W-1



PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No.
3

Date:
28April15

Description:

Wetland W-2 eastern portion



Photo No.
4

Date:
28April15

Description:

Upland area for W-2 eastern portion



PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No.
5

Date:
28April15

Description:

Wetland W-3



Photo No.
6

Date:
28April15

Description:

Upland area for W-3



PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No.
7

Date:
28April15

Description:

Wetland W-4



Photo No.
8

Date:
28April15

Description:

Upland area for W-4



PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No.
9

Date:
28April15

Description:

Wetland W-5



Photo No.
10

Date:
28April15

Description:

Upland area for W-5



PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No. 11 Date: 29April15

Description:
Wetland W-2 western portion



Photo No. 12 Date: 29April15

Description:
Upland for W-2 western portion



PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No.
13

Date:
27AUG15

Description:

Wetland W-1 (ext)



Photo No.
14

Date:
27AUG15

Description:

Upland area for W-1
(ext)



PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No. 15 Date: 31AUG15

Description:

Wetland W-2 (ext)



Photo No. 16 Date: 31AUG15

Description:

Upland for W-2 (ext)



PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No.
17

Date:
26AUG15

Description:

Wetland W-3 (ext)



Photo No.
18

Date:
26AUG15

Description:

Upland area for W-3
(ext)



PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No. 19 Date: 28AUG15

Description:
Wetland W-6



Photo No. 20 Date: 28AUG15

Description:
Upland for W-6



PHOTOGRAPHIC LOG



Title: USDVA Wetland Delineation

Location:
Pembroke NY

Photo No.
21

Date:
26AUG15

Description:
Stream S-1



Photo No.
22

Date:
26AUG15

Description:

Stream S-1-south
central



Attachment 2

VA OLFM WNY

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

DATA FORM

ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 28 April 2015

County: Genesee

State: New York Community: PEM / PSS

Data Point ID (i.e. 2W@Wet. G): W1-3

Nearest Flag to Data Point: W1-3

Investigator(s): J. Lyons

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes X No
Saturated Conditions? Yes X No

Depth of Water (inches): 2' 4"
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

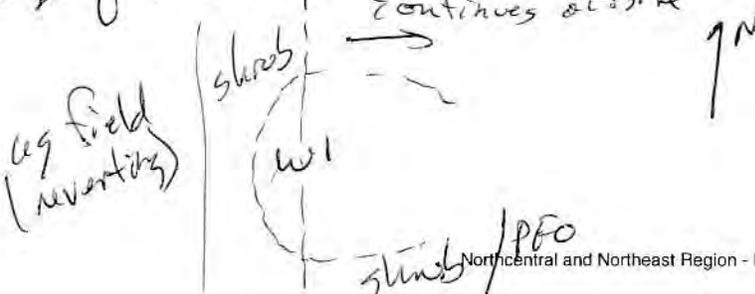
Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

Small open water wetland (pool) with fringe saturated soils on the east edge of site



Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: LMA SILT LOAM

Sampling Date: 28 April 2015
 Data Point ID: W1

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

Depth (inches)	Matrix		Redux Features			Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	
<u>0-18</u>	<u>10YR 2/1</u>	<u>100</u>				<u>muck/silt loam</u>
<u>18-20</u>	<u>10YR 3/2</u>	<u>100</u>				<u>clay loam</u>

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input checked="" type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input checked="" type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Problematic Hydric Soil Indicators³ <input checked="" type="checkbox"/> 2 cm Muck (A10) <input checked="" type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in remarks)	Restrictive Layer (if observed) Type: _____ Depth (inches): _____
---	--	--

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

Remarks silty muck covered with 1-3" of water on edge of open water pool.

Wetland Determination

Hydrophytic Vegetation Present? Yes No
 Hydric Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
 Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
 Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
 Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
 If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

**DATA FORM
ROUTINE WETLAND DETERMINATION**

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 28 April 2015

County: Genesee State: New York Community: UPCAND

Data Point ID (i.e. 2W@Wet. G): W1 UP-1

Nearest Flag to Data Point: _____

Investigator(s): J. Lyons

Landform: Hillside/Seep Toe of Slope Depressional Riparian (As field)

Is the area a potential problem area? Yes No

Landscape Position: Flat Undulating Sloping Convex Concave

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes _____ No X

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate	Boulder _____	Gentle _____
	Water Depth _____	Steep	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

upland area is west of W1 on reverting ag field.
(Successional growth visible)

Project Number: 60345076
 Applicant: USDVA

Sampling Date: 28 April 2015
 Data Point ID: UP-1

Vegetation

<u>Tree Stratum</u> (Plot size: 30-foot radius)				Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1.							
2.							
3.							
4.							
5.							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 = _____
				_____ = Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: 15-foot radius)				Absolute % Cover	Dominant Species?	Indicator Status	
1.							
2.							
3.							
4.							
5.							
				_____ = Total Cover			
<u>Herb Stratum</u> (Plot size: 5-foot radius)				Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test >50% <input type="checkbox"/> Prevalence Index is $\leq 3.0^1$ <input type="checkbox"/> Morphological Adaptations ¹ (provide supporting data in remarks) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (explain in remarks) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Trifolium spp.</u>		<u>10</u>	<u>Y</u>	<u>FACU</u>		
2.	<u>Taraxacum officinale</u>		<u>10</u>	<u>Y</u>	<u>FACU</u>		
3.	<u>Phleum pratense</u>		<u>25</u>	<u>Y</u>	<u>FACU</u>		
4.	<u>Solidago canadensis spp.</u>		<u>5</u>	<u>Y</u>	<u>FACU</u>		
5.							
6.							
7.							
8.							
9.							
10.							
				_____ = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: 30-foot radius)				Absolute % Cover	Dominant Species?	Indicator Status	
1.							
2.							
3.							
4.							
5.							
				_____ = Total Cover			

Remarks
 bare ground of dead veg. from last year.

Project Number: 6034 5076
 Applicant: USDA
 Soil Map Unit: Ovid silt loam

Sampling Date: 28 April 2015
 Data Point ID: UP-1

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

Depth (inches)	Matrix		Redox Features			Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	
0-16	10YR 3/3	100				silt loam w/ sand
16-20	10YR 5/8	100				sandy loam

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	Problematic Hydric Soil Indicators ³	Restrictive Layer (if observed)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Type: _____ Depth (inches): _____
<input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in remarks)		

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

Remarks: Typical as field soil - evidence of old plow depth.

Wetland Determination

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No

Wetland Hydrology Present? Yes No

Is this Sampling Point Within a Wetland? Yes No

Is the wetland mapped in the NWI? Yes No

Is the wetland a mapped state wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A

Is this Wetland Potentially Isolated? Yes No N/A

If yes, indicate classification _____

If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

DATA FORM

ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 28 APRIL 2015

County: Genesee 29 APRIL 2015

State: New York Community: PCN/PSS/PFO

Data Point ID (i.e. 2W@Wet. G): W-2

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes X No _____
Saturated Conditions? Yes X No _____

Depth of Water (inches): 1-6"
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Characteristics

Stream type: Morphology: Stream Gradient: Substrate: Flow:

Perennial Bank Width _____ Gentle _____ Bed Rock _____ Sand _____ No Flow _____
 Intermittent Stream Width _____ Moderate _____ Boulder _____ Silt _____ Gentle _____
 Water Depth _____ Steep _____ Cobble _____ Clay _____ Moderate _____
 Gravel _____ Heavy _____

Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks W2 is a large complex with mainly PFO in the west & central areas. PSM in the central & east areas with a small PFO component to the far east side of the site. Several data points were taken due to the size & complexity of W2. Part of DEC & NWS wetlands.

W2

1N

north ag field

PEO

NW
DEC
AK-14

Judson Falls Rd.

PEM

PSS

PEO

PSS

W2

PEM

continues
to
the
EAST

PEM

gravel road

W4

house

Project Number: 60345076
 Applicant: USDVA

Sampling Date: 28 APRIL 2015
 Data Point ID: W2 29 April 15

Vegetation

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30-foot radius)			
1. <u>Acer rubrum</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>
2. <u>Acer saccharinum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>
3. <u>Populus tremuloides</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>
4.			
5.			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Small PFO component (E side) 15 = Total Cover

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)

	Absolute % Cover	Dominant Species?	Indicator Status
Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. <u>Salix spp. (4 sp.)</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>
2. <u>Cornus alba sericea</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>
3.			
4.			
5.			

Prevalence Index = B/A = _____

	Absolute % Cover	Dominant Species?	Indicator Status
Herb Stratum (Plot size: 5-foot radius)			
1. <u>Phalaris arundinacea</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>
2. <u>Oenothera sensibilis</u>	<u>2</u>	<u>N</u>	<u>FACW</u>
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10. <u>(moss covered logs/rocks)</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>

Hydrophytic Vegetation Indicators:
 Rapid Test for Hydrophytic Vegetation
 Dominance Test >50%
 Prevalence Index is $\leq 3.0^1$
 Morphological Adaptations¹ (provide supporting data in remarks)
 Problematic Hydrophytic Vegetation¹ (explain in remarks)
¹Indicators 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.

	Absolute % Cover	Dominant Species?	Indicator Status
Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5.			

Remarks the central area (old ag field with surface saturation) is mostly RCG & Salix.
 Data presented is from east/central data points outside established DEC/NWI wetlands.
 Veg in early stages of growth.

Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: mostly Canandaigua silt loam

Sampling Date: 28 April 2015
 Data Point ID: W2 29 April 15

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

Depth (inches)	Matrix		Redox Features			Texture, Structure, Other	
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²		Loc ³
0-18	10YR ² /2	98	10YR ⁵ /6	F	c	m	silty loam with slight mottles & few small ox root zones. (sand)
18-20	6.5Y ¹ 5/10Y	100					clay

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: 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)

- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Problematic Hydric Soil Indicators³

- 2 cm Muck (A10)
- Coast Prairie Redox (A16)
- 5 cm Mucky Peat or Peat (S3)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils F19)
- Mesic Spodic (TA6)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____
 Depth (inches): _____

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

Remarks Muddy soils with odor of a clay layer @ ~ 18"
 other data points had larger/more evident mottling.

Wetland Determination

Hydrophytic Vegetation Present? Yes No
 Hydric Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Is this Sampling Point Within a Wetland? Yes No
 Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
 Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
 Is this Wetland Potentially Isolated? Yes No N/A
 Is the wetland mapped in the NWI? Yes No
 Is the wetland a mapped state wetland? Yes No
 If yes, indicate classification _____
 If yes, indicate wetland ID AK-14

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

**DATA FORM
ROUTINE WETLAND DETERMINATION**

Northcentral and Northeast Regional Supplement

Town: Pembroke

County: Genesee

State: New York

Sampling Date: 28 April 2015

29 April 2015

Community: UPCAWD

Data Point ID (i.e. 2W@Wet. G): UP-2

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes _____ No X

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____
			Sand _____	
			Silt _____	
			Clay _____	

Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

data pt. taken north of eastern portion of W2 (PFO)
similar to UP-1.

Project Number: 60345076
 Applicant: USDVA

Sampling Date: 28 April 2015 & 29 April 15
 Data Point ID: UP-2

Vegetation

<u>Tree Stratum (Plot size: 30-foot radius)</u>			
	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		_____ = Total Cover	

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

<u>Sapling/Shrub Stratum (Plot size: 15-foot radius)</u>			
	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>15</u>	<u>Y</u>	<u>FACU</u>
2.			
3.			
4.			
5.			
		_____ = Total Cover	

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 = _____

<u>Herb Stratum (Plot size: 5-foot radius)</u>			
	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>15</u>	<u>Y</u>	<u>FACU</u>
2.	<u>5</u>	<u>Y</u>	<u>FACU</u>
3.	<u>10</u>	<u>Y</u>	<u>FACU</u>
4.	<u>10</u>	<u>Y</u>	<u>FACU</u>
5.	<u>10</u>	<u>Y</u>	<u>FACU</u>
		_____ = Total Cover	

Hydrophytic Vegetation Indicators:
 Rapid Test for Hydrophytic Vegetation
 Dominance Test >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (provide supporting data in remarks)
 Problematic Hydrophytic Vegetation¹ (explain in remarks)
¹Indicators 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.

<u>Woody Vine Stratum (Plot size: 30-foot radius)</u>			
	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		_____ = Total Cover	

Remarks some bare ground - seems to be edge of successional field.

Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: Phelps gravelly loam

Sampling Date: 28 April 15 & 29 April 15
 Data Point ID: UP-2

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

Depth (inches)	Matrix		Redox Features			Texture, Structure; Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	
0-16	10YR 3/3	100				silt loam with sand & few small nodules
16-20	10YR 5/8	100				sandy loam

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: 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)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Problematic Hydric Soil Indicators³

- 2 cm Muck (A10)
- Coast Prairie Redox (A16)
- 5 cm Mucky Peat or Peat (S3)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils F19)
- Mesic Spodic (TA6)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____
 Depth (inches): _____

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

Remarks: Similar to UH-1 - typical ag field/upland soils.

Wetland Determination

- Hydrophytic Vegetation Present? Yes No
- Hydric Soil Present? Yes No
- Wetland Hydrology Present? Yes No
- Is this Sampling Point Within a Wetland? Yes No
- Is the wetland mapped in the NWI? Yes No
- Is the wetland a mapped state wetland? Yes No
- Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
- Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
- Is this Wetland Potentially Isolated? Yes No N/A
- If yes, indicate classification _____
- If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60348076

Applicant: USDA

DATA FORM

ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 28 April 2015

County: Genesee

State: New York Community: PEM/PSS

Data Point ID (i.e. 2W@Wet. G): W3

Nearest Flag to Data Point: _____

Investigator(s): J. Lyons

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-3

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3) in spots
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes X No _____

Depth of Water (inches): 0
Depth to Sat. Soil (inches): 1-6" - multiple pits
Depth to Water (inches): 1-6" - avg. (4)"

Stream Characteristics

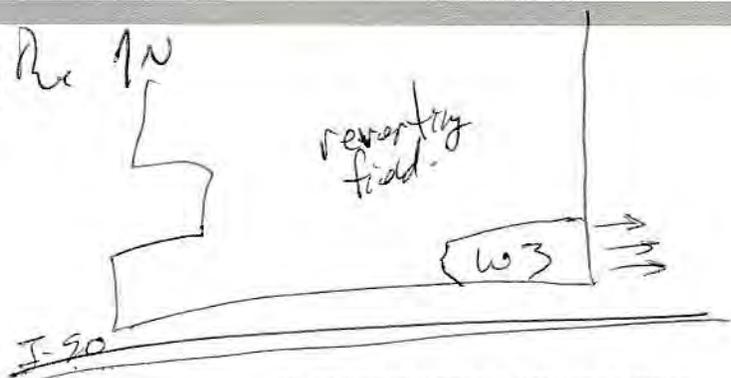
<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks small wetland in SE corner of the 1N
gabe extending to the east.



Project Number: 60345076
 Applicant: USDWA
 Soil Map Unit: Canandaigua silt loam

Sampling Date: 28 April 2015
 Data Point ID: W3

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

Depth (inches)	Matrix		Redux Features			Texture, Structure, Other	
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²		Loc ³
0-14	10YR2/2	90	10YR2.5/6	F	C	M	silty loam ox root zones foder

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	Problematic Hydric Soil Indicators ³	Restrictive Layer (if observed)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input checked="" type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input checked="" type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Type: <u>Rode</u> Depth (inches): <u>14"</u>

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

Remarks o horizon missing in spots - This area may have been impeded in the past. (?) may have rode fill in lower horizons.

Wetland Determination

Hydrophytic Vegetation Present? Yes No
 Hydric Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
 Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
 Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
 Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
 If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202
Project Number: 60345076

**DATA FORM
ROUTINE WETLAND DETERMINATION**

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 28 April 2015
County: Genesee
State: New York Community: UPLAND

Applicant: USDVA

Data Point ID (i.e. 2W@Wet. G): UP-3

Nearest Flag to Data Point: _____

Investigator(s): S LYONS

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Is the area a potential problem area? Yes No

Landscape Position: Flat Undulating Sloping Convex Concave

Is the site significantly disturbed? Yes No

level area

Approximate Slope (%): 1-3

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No
Saturated Conditions? Yes _____ No

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____ Sand _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____ Silt _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____ Clay _____	Moderate _____
			Gravel _____	Heavy _____

Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

Upland area north of W3 in successional growth field.

Project Number: 60345076
 Applicant: US DVA

Sampling Date: 28 April 2015
 Data Point ID: UP-3

Vegetation

	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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 = _____

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

Herb Stratum (Plot size: 5-foot radius)			
1. <u>Taraxacum officinale</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
2. <u>Solidago canadensis</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>
3. <u>Phleum pratense</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
4. <u>Trifolium spp.</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____

Hydrophytic Vegetation Indicators:
 ___ Rapid Test for Hydrophytic Vegetation
 ___ Dominance Test >50%
 ___ Prevalence Index is $\leq 3.0^1$
 ___ Morphological Adaptations¹ (provide supporting data in remarks)
 ___ Problematic Hydrophytic Vegetation¹ (explain in remarks)
¹Indicators 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.

Remarks
reventog (hug) (as) field.
some dead veg. (solidago) present
- bare ground.

Woody Vine Stratum (Plot size: 30-foot radius)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: Deeply gravelly loam

Sampling Date: 28 April 15
 Data Point ID: UP-3

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

Depth (inches)	Matrix		Redox Features			Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	
0-16	10YR 3/3	100				sandy loam w/ few small rocks ≥ 1"

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: 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)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Problematic Hydric Soil Indicators³

- 2 cm Muck (A10)
- Coast Prairie Redox (A16)
- 5 cm Mucky Peat or Peat (S3)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils F19)
- Mesic Spodic (TA6)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Rock
 Depth (inches): 16

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

Remarks: upland soil w/ old ag. field.

Wetland Determination

- Hydrophytic Vegetation Present? Yes No
- Hydric Soil Present? Yes No
- Wetland Hydrology Present? Yes No
- Is this Sampling Point Within a Wetland? Yes No
- Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
- Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
- Is this Wetland Potentially Isolated? Yes No N/A
- Is the wetland mapped in the NWI? Yes No If yes, indicate classification _____
- Is the wetland a mapped state wetland? Yes No If yes, indicate wetland ID _____

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257 West Genesee Street
Suite 400
Buffalo, New York 14202
Project Number: 60345076

**DATA FORM
ROUTINE WETLAND DETERMINATION**

Northcentral and Northeast Regional Supplement

Town: Panbroke Sampling Date: 28 April 2015
County: Genesee
State: New York Community: ~~Watts~~ Pan/ISS
Nearest Flag to Data Point: Small PFO

Data Point ID (i.e. 2W@Wet. G): W4

Investigator(s): J. LYONS

Landform: Hillside/Seep Toe of Slope Depressional Riparian
Landscape Position: Flat Undulating Sloping Convex Concave

Is the area a potential problem area? Yes No
Is the site significantly disturbed? Yes No
Approximate Slope (%): 1-2

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No
Do Normal Circumstances exist on site? Yes No

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes No
Saturated Conditions? Yes No

Depth of Water (inches): to 4" in spots
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0
very wet in western portion
for majority of W4.

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

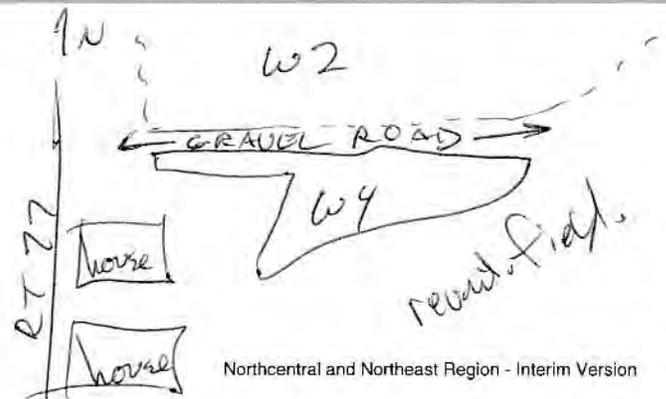
Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

W4 is separated from W2 by a hard gravel access road.
Small section of fringe is PFO.
Some open water areas
w/ large spms of cattails



Project Number: 60345076
 Applicant: USDVA

Sampling Date: 28 April 2015
 Data Point ID: W4

Vegetation

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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)

	Absolute % Cover	Dominant Species?	Indicator Status
Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.	5	N	FACW
2.	5	N	FACW
3.			
4.			
5.			
	10 = Total Cover		

Prevalence Index = B/A = _____

	Absolute % Cover	Dominant Species?	Indicator Status
Herb Stratum (Plot size: 5-foot radius)			
1.	70	Y	OBL
2.	5	N	FACW/100%
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	75 = Total Cover		

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test >50%

Prevalence Index is $\leq 3.0^1$

Morphological Adaptations¹ (provide supporting data in remarks)

Problematic Hydrophytic Vegetation¹ (explain in remarks)

¹Indicators 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.

Remarks

W4 intercession has cattails - $\frac{1}{2}$ fringe $\frac{1}{2}$ west side ~~is~~ has open water to ~10"

Sample area within edge of cattail area.

	Absolute % Cover	Dominant Species?	Indicator Status
Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: Canandaigua / OUB; BA

Sampling Date: 28 April 2015
 Data Point ID: W4

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

Depth (inches)	Matrix		Redux Features			Texture, Structure, Other	
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²		Loc ³
0-3	10YR 2/1	100				Muck	
3-12	10YR 2/2	90	10YR 5/6	r	c	m	silty loam with very little sand.
12-70	10YR 2/2	90	10YR 5/6	r	c	m	silty loam

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	Problematic Hydric Soil Indicators ³	Restrictive Layer (if observed)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input checked="" type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input checked="" type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input checked="" type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	<input checked="" type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils F19 <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in remarks)
Type: _____ Depth (inches): _____		

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

Remarks
 a large amount of leaf litter from cattails on surface with saturated soils - strong odor.

Wetland Determination

Hydrophytic Vegetation Present? Yes No
 Hydric Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
 Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
 Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
 Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
 If yes, indicate wetland ID _____

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Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

Data Point ID (i.e. 2W@Wet. G): UP-4

**DATA FORM
ROUTINE WETLAND DETERMINATION**

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 28 APRIL 2015

County: Genesee

State: New York Community: UPLAND

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes _____ No X

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____
			Sand _____	
			Silt _____	
			Clay _____	

Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

Upland reverting field. south of W4.
Dead veg.

Project Number: 60345076
 Applicant: USDVA

Sampling Date: 28 April 15
 Data Point ID: UP-4

Vegetation

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

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 = _____

	Absolute % Cover	Dominant Species?	Indicator Status
Herb Stratum (Plot size: 5-foot radius)			
1.	<u>20</u>	<u>Y</u>	<u>FACU</u>
2.	<u>10</u>	<u>Y</u>	<u>FACU</u>
3.	<u>10</u>	<u>Y</u>	<u>FACU</u>
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	<u>40</u> = Total Cover		

Hydrophytic Vegetation Indicators:
 Rapid Test for Hydrophytic Vegetation
 Dominance Test >50%
 Prevalence Index is <3.0¹
 Morphological Adaptations¹ (provide supporting data in remarks)
 Problematic Hydrophytic Vegetation¹ (explain in remarks)
¹Indicators 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.

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Remarks

Project Number: 60345076
 Applicant: USDWA

Sampling Date: 28 APRIL 2015
 Data Point ID: UP-4

Soil Map Unit: Phelps gravelly loam

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

Depth (inches)	Matrix		Redox Features			Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	
0-20	10YR3/3	100				sandy loam with few rocks ≥ 1" & a few ≤ 1" "

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	Problematic Hydric Soil Indicators ³	Restrictive Layer (if observed)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Type: _____ Depth (inches): _____
<input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils F19 <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in remarks)		

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

Remarks: typical ag field soil - upslope from WY.
western side is residential yards.

Wetland Determination

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No

Wetland Hydrology Present? Yes No

Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A

Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No

Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____

If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202
Project Number: 60345076

**DATA FORM
ROUTINE WETLAND DETERMINATION**

Northcentral and Northeast Regional Supplement
Town: Pembroke
County: Genesee
State: New York

Sampling Date: 28 April 2015
Community: PSS / PFO

Data Point ID (i.e. 2W@Wet. G): W5

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

slight impact to open water channel from adj. land owner logging.

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes X No _____
Saturated Conditions? Yes A No _____

Depth of Water (inches): to 1-2' in spots.
Depth to Sat. Soil (inches): 0
Depth to Water (inches): 0

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

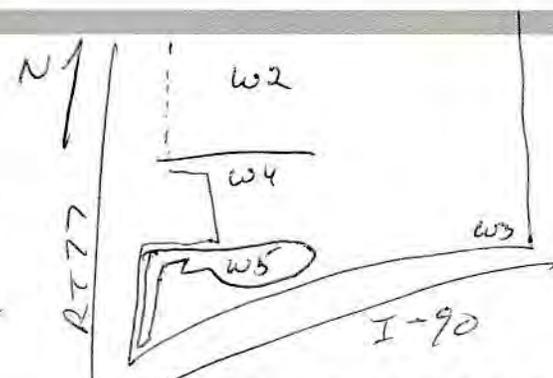
Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

W5 is a PSS/PFO complex with a drainage channel leading to a smaller one which drains south towards the I-90 into a major highway drainage. Open water areas.



Project Number: 60345076
 Applicant: USDWA

Sampling Date: 20 April 2015
 Data Point ID: WS

Vegetation

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5.			
	<u> </u> = Total Cover		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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 = _____

	Absolute % Cover	Dominant Species?	Indicator Status
Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.	<u>15</u>	<u>Y</u>	<u>FACW</u>
2.	<u>10</u>	<u>Y</u>	<u>FACW</u>
3.	<u>2</u>	<u>N</u>	<u>FAC</u>
4.			
5.			
	<u>27</u> = Total Cover		

Hydrophytic Vegetation Indicators:
 Rapid Test for Hydrophytic Vegetation
 Dominance Test >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (provide supporting data in remarks)
 Problematic Hydrophytic Vegetation¹ (explain in remarks)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

	Absolute % Cover	Dominant Species?	Indicator Status
Herb Stratum (Plot size: 5-foot radius)			
1.	<u>5</u>	<u>Y</u>	<u>FACW</u>
2.	<u>5</u>	<u>Y</u>	<u>FACW</u>
3.	<u>5</u>	<u>Y</u>	<u>FACW/dy</u>
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	<u>15</u> = Total Cover		

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.

Remarks
Small amounts of veg. present.
FA on water surface & moss on logs.

	Absolute % Cover	Dominant Species?	Indicator Status
Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5.			
	<u> </u> = Total Cover		

Project Number: 60345076 Sampling Date: 28 April 2015
 Applicant: USDA Data Point ID: WS
 Soil Map Unit: WdA Mucks / Lamson (GnB) minor

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

Depth (inches)	Matrix		Redux Features				Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	Loc ³	
0-4	10YR 2/1	100					MUCK
4-16	10YR 2/2	95	10YR 5/6	F	C	M	silty loam w/ some sand & veg. debris ¹
16-20	10YR 2/2	90	10YR 5/6	F	C	M	silty loam
			6LY 2 4/5B6	F	C	M	some clay

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	Problematic Hydric Soil Indicators ³	Restrictive Layer (if observed)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input checked="" type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input checked="" type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input checked="" type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	<input checked="" type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in remarks)
Type: _____ Depth (inches): _____		

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

Remarks: varied degrees of open water & mucky soils
homoday terrain in PFO sections

Wetland Determination

Hydrophytic Vegetation Present? Yes No
 Hydric Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Is this Sampling Point Within a Wetland? Yes No
 Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
 Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
 Is this Wetland Potentially Isolated? Yes No N/A
 Is the wetland mapped in the NWI? Yes No
 Is the wetland a mapped state wetland? Yes No
 If yes, indicate classification _____
 If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDWA

Data Point ID (i.e. 2W@Wet. G): UP-5

**DATA FORM
ROUTINE WETLAND DETERMINATION**

Northcentral and Northeast Regional Supplement

Town: Pembroke

County: Genesee

State: New York

Sampling Date: 28 April 2015

Community: UPLAND

Nearest Flag to Data Point: _____

Investigator(s): J LYONS

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-2

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes _____ No X

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

upland areas to south; west of WS.

Project Number: 60345076
 Applicant: USDWA

Sampling Date: 28 April 2015
 Data Point ID: UP-5

Vegetation

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

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 = _____

	Absolute % Cover	Dominant Species?	Indicator Status
Herb Stratum (Plot size: 5-foot radius)			
1.	20	Y	FACU
2.	30	Y	FACU
3.	5	Y	FACU
4.	5	Y	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	60 = Total Cover		

Hydrophytic Vegetation Indicators:
 Rapid Test for Hydrophytic Vegetation
 Dominance Test >50%
 Prevalence Index is $\leq 3.0^1$
 Morphological Adaptations¹ (provide supporting data in remarks)
 Problematic Hydrophytic Vegetation¹ (explain in remarks)
¹Indicators 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.

Remarks

Woody Vine Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: Galen very fine sandy loam

Sampling Date: 28 April 2015
 Data Point ID: UP-5

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

Depth (inches)	Matrix		Redox Features			Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	
0-17	10YR 3/3	100				sandy loam with rocks 21"

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: 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)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Problematic Hydric Soil Indicators³

- 2 cm Muck (A10)
- Coast Prairie Redox (A16)
- 5 cm Mucky Peat or Peat (S3)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils F19)
- Mesic Spodic (TA6)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Rock
 Depth (inches): 17

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

Remarks

upland area - somewhat maintained.

Wetland Determination

Hydrophytic Vegetation Present? Yes No
 Hydric Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Is this Sampling Point Within a Wetland? Yes No
 Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
 Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
 Is this Wetland Potentially Isolated? Yes No N/A
 Is the wetland mapped in the NWI? Yes No
 Is the wetland a mapped state wetland? Yes No
 If yes, indicate classification _____
 If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

Data Point ID (i.e. 2W@Wet. G): W1 (ext)

DATA FORM

ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 27 AUG 2015

County: Genesee

State: New York Community: PEM/PSS

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS R. RUNG

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 2-4

Hydrology

minor historic drainage swales.

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes X No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): 18" in spots - (mostly no.)
Depth to Water (inches): 18"

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

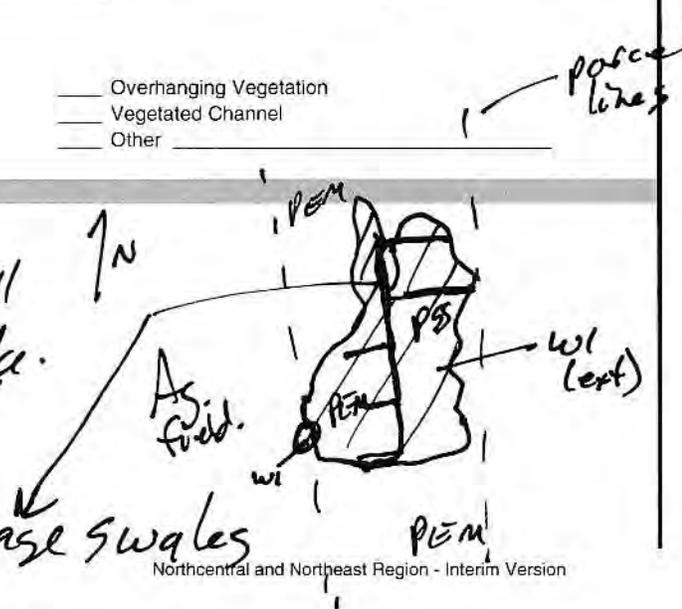
Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

This wetland is an extension of a small pot hole/cr wetland on the parcel edge. It is mostly PEM with a PSS fringe & few trees in the SE corner. Historic drainage swales are present.



Project Number: 60345076
 Applicant: USDVA

Sampling Date: 27 AUG 2015
 Data Point ID: W1 (ext)

Vegetation

Tree Stratum (Plot size: 30-foot radius)		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Sapling/Shrub Stratum (Plot size: 15-foot radius)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Salix</i> spp	10	Y	FACW
2.	<i>Cornus sericea</i>	10	Y	FACW
3.				
4.				
5.				
		20	= Total Cover	

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 = _____

Herb Stratum (Plot size: 5-foot radius)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Phalaris arundinacea</i>	50	Y	FACU
2.	<i>Solidago canadensis</i>	5	N	FACU
3.	<i>S. odora</i>	2	N	N/C
4.	<i>S. gigantea</i>	10	Y	FACU
5.				
6.				
7.				
8.				
9.				
10.				
		67	= Total Cover	

Hydrophytic Vegetation Indicators:
 Rapid Test for Hydrophytic Vegetation
 Dominance Test >50%
 Prevalence Index is $\leq 3.0^1$
 Morphological Adaptations² (provide supporting data in remarks)
 Problematic Hydrophytic Vegetation¹ (explain in remarks)
 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.

Woody Vine Stratum (Plot size: 30-foot radius)		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
			= Total Cover	

Remarks
 distinctive veg
 weeds - RCG 1/5
 golden rod (com.)
 Common emergent spot picked for data:

Project Number: 60345076
 Applicant: USDMA
 Soil Map Unit: C9A

Sampling Date: 27 AUG 15
 Data Point ID: W1 (cont)

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

Depth (inches)	Matrix		Redox Features			Texture, Structure, Other	
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²		Loc ³
0-2	10YR 7/1	100					silty muck (sheen)
2-18	10YR 7/2	90	10YR 5/6 10R 3/6	f	c	m	silty loam w/ some sand ox root zones
18-20	10YR 5/3	95	10YR 6/8	f	cs	m	dry clay loam w/ sand inclusions

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4) *slight*
- 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)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Problematic Hydric Soil Indicators³

- 2 cm Muck (A10)
- Coast Prairie Redox (A16)
- 5 cm Mucky Peat or Peat (S3)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils F19)
- Mesic Spodic (TA6)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____
 Depth (inches): _____

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

Remarks: *probably till in deepest. clay bottom, ox. root zones
 some ~~the~~ (SP) reduction.*

Wetland Determination

Hydrophytic Vegetation Present? Yes No
 Hydric Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
 Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
 Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
 Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
 If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

DATA FORM

ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 29 AUG 2015

County: Genesee

State: New York Community: UPLAND (EMRG7)

Data Point ID (i.e. 2W@Wet. G): UPL (ext)

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS R RUNG

Is the area a potential problem area? Yes No

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Is the site significantly disturbed? Yes No

Landscape Position: Flat Undulating Slipping Convex Concave

Approximate Slope (%): 25

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No _____
Saturated Conditions? Yes _____ No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

N/A

Stream Characteristics

Stream type: <u>Perennial</u>	Morphology: <u>Bank Width _____</u>	Stream Gradient: <u>Gentle</u>	Substrate: <u>Bed Rock _____</u>	Flow: <u>No Flow _____</u>
<u>Intermittent</u>	<u>Stream Width _____</u>	<u>Moderate</u>	<u>Boulder _____</u>	<u>Gentle _____</u>
	<u>Water Depth _____</u>	<u>Steep</u>	<u>Cobble _____</u>	<u>Moderate _____</u>
			<u>Gravel _____</u>	<u>Heavy _____</u>

Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

Upland area adjacent to PEM man of W1 (ext). Canada goldenrod.

Area has dom. of gray dogwood (herb.) & shrub.

Project Number: 60345076
 Applicant: USDVA

Sampling Date: 27 AUG 2015
 Data Point ID: UPL (ext.)

Vegetation				Dominance Test worksheet:					
<u>Tree Stratum</u> (Plot size: 30-foot radius)				Absolute % Cover	Dominant Species?	Indicator Status	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)		
1.							Total Number of Dominant Species Across All Strata: _____ (B)		
2.									
3.						Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)			
4.									
5.									
				_____ = Total Cover		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 = _____			
<u>Sapling/Shrub Stratum</u> (Plot size: 15-foot radius)				Hydrophytic Vegetation Indicators:					
1.	<u>Cornus racemosa</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	<input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test >50% <input type="checkbox"/> Prevalence Index is $\leq 3.0^1$ <input type="checkbox"/> Morphological Adaptations ¹ (provide supporting data in remarks) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (explain in remarks) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
2.					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.				
3.									
4.									
5.									
6.									
				_____ = Total Cover		Remarks <u>lots of veg. detritus on ground.</u> <u>Upland from wetland basin.</u>			
<u>Herb Stratum</u> (Plot size: 5-foot radius)									
1.	<u>Solidago canadensis</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>					
2.	<u>Solidago altissima</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>					
3.	<u>Solidago olona</u>	<u>5</u>	<u>N</u>	<u>N/L</u>					
4.	<u>Phalaris arundinacea</u>	<u>5</u>	<u>N</u>	<u>FACU</u>					
5.	<u>Daucus carota</u>	<u>3</u>	<u>N</u>	<u>UPL</u>					
6.	<u>Phleum pratense</u>	<u>5</u>	<u>N</u>	<u>FACU</u>					
7.	<u>Cornus racemosa</u>	<u>5</u>	<u>N</u>	<u>FACU</u>					
8.	<u>Asclepias syriaca</u>	<u>5</u>	<u>N</u>	<u>UPL</u>					
9.									
10.									
				_____ = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: 30-foot radius)									
1.	<u>Vitis sp.</u>	<u>2</u>	<u>N</u>	<u>FACU</u>					
2.									
3.									
4.									
5.									
				_____ = Total Cover					

Project Number: 60345076
 Applicant: USDWA
 Soil Map Unit: Lm A

Sampling Date: 27 AUG 15
 Data Point ID: W1 (ext)
UPI

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

Depth (inches)	Matrix		Redox Features			Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	
0-1	10YR 3/2	100				silty loam w/ roots
1-20	10YR 3/3	100				sandy loam w/ few small gravel.

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: 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)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

N/A

Problematic Hydric Soil Indicators³

- 2 cm Muck (A10)
- Coast Prairie Redox (A16)
- 5 cm Mucky Peat or Peat (S3)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils (F19)
- Mesic Spodic (TA6)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____
 Depth (inches): _____

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

Remarks

Historic farmland - mixed horizons - homogeneous.

Wetland Determination

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No

Wetland Hydrology Present? Yes No

Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A

Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No

Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____

If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

DATA FORM

ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 31 AUG 2015

County: Genesee

State: New York Community: PEM / PSS

Data Point ID (i.e. 2W@Wet. G): W2 (EXT)

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS R. RUNG

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-4

Hydrology

(VA OCEM WNY)

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes X No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): 18
Depth to Water (inches): _____

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

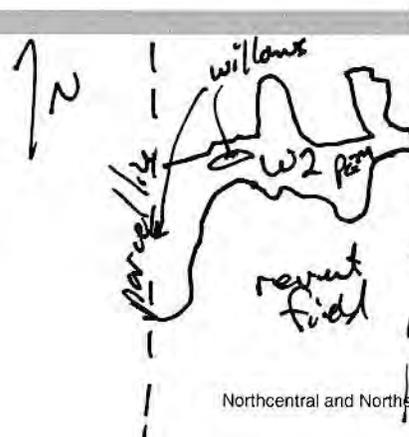
Adjacent Community Type: _____ N/A

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

Wetland W2 was extended from the land parcel to the west. It is a mix of PEM (mostly) & PSS with a line & small grove of willows



Project Number: 684 5076
 Applicant: USDVA

Sampling Date: 31 AUG 2015
 Data Point ID: W2 (WKT)

Vegetation					Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		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 = _____
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover					
Sapling/Shrub Stratum (Plot size: 15-foot radius)					
1. <u>Salix ssp</u>	<u>3</u>	<u>N</u>	<u>FACW</u>		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>3</u> = Total Cover					
Herb Stratum (Plot size: 5-foot radius)					
1. <u>Oenothera sensibilis</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>		Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test >50% <input type="checkbox"/> Prevalence Index is $\leq 3.0^1$ <input type="checkbox"/> Morphological Adaptations ¹ (provide supporting data in remarks) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (explain in remarks) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Solidago odora</u>	<u>5</u>	<u>N</u>	<u>N/C</u>		
3. <u>Solidago gigantea</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>		
4. <u>Scirpus cyperinus</u>	<u>2</u>	<u>N</u>	<u>OBL</u>		
5. <u>Phalaris arundinacea</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>		
_____ = Total Cover					
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.					
Remarks <u>mostly reed canopy grass</u> <u>- wetland area is in swattp low depression area.</u> <u>veg. is thick/lush</u>					
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
<u>82</u> = Total Cover					
Woody Vine Stratum (Plot size: 30-foot radius)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover					

Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: NgA

Sampling Date: 31 AUG 2015
 Data Point ID: W2 (1517)

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

Depth (inches)	Matrix		Redux Features				Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	Loc ³	
0-1	10YR 7/2	100					silty loam w/ roots
1-16	10YR 7/2	80	2.5YR 4/6	F	C	m	Sandy loam
			10YR 5/4	F	C	m	
16-20		95	10YR 6/1				clay (dry)
			10YR 6/6	F	C	m	sand inclusions

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: 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)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Problematic Hydric Soil Indicators³

- 2 cm Muck (A10)
- Coast Prairie Redox (A16)
- 5 cm Mucky Peat or Peat (S3)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils F19)
- Mesic Spodic (TA6)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____
 Depth (inches): _____

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

Remarks: Soil is hydric but has maintained a homogeneous structure more than likely from past plowing (ag. activities). depleted clay layer in lower horizon.

Wetland Determination

Hydrophytic Vegetation Present? Yes No
 Hydric Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Is this Sampling Point Within a Wetland? Yes No
 Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
 Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
 Is this Wetland Potentially Isolated? Yes No N/A - to be
 Is the wetland mapped in the NWI? Yes No
 If yes, indicate classification _____
 Is the wetland a mapped state wetland? Yes No
 If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

DATA FORM

ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

Town: Pembroke

County: Genesee

State: New York

Sampling Date: 31 AUG 2015

Community: UPLAND

Data Point ID (i.e. 2W@Wet. G): UP 2 (EXT)

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS R. RUNG

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 2-4

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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)

N/A

- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes _____ No X

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

Stream type: Perennial Morphology: Bank Width Stream Gradient: Gentle Substrate: Bed Rock Flow: No Flow

Intermittent Stream Width Moderate Boulder Silt Gentle _____

Water Depth Steep Cobble Clay Moderate _____

Gravel _____ Heavy _____

Adjacent Community Type: _____

N/A

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

upland area adjacent to w2. up 2 area is upslope in elevation from wetland - (historic ag field?)
Difference of dom. veg. & lighter soils colors.

Project Number: 60345076
 Applicant: USDVA

Sampling Date: 31 AUG 2015
 Data Point ID: UP2 (EXT)

Vegetation				Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
Tree Stratum (Plot size: 30-foot radius)					
Absolute % Cover	Dominant Species?			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 = _____	
_____ = Total Cover					
Sapling/Shrub Stratum (Plot size: 15-foot radius)					
_____ = Total Cover					
Herb Stratum (Plot size: 5-foot radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test >50% <input type="checkbox"/> Prevalence Index is $\leq 3.0^1$ <input type="checkbox"/> Morphological Adaptations ¹ (provide supporting data in remarks) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (explain in remarks) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1.	<i>Solidago canadensis</i>	20	Y	FACU	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. Remarks thick variety of veg. low / no shrubs on this area all emergent
2.	<i>S. odora</i>	3	N	N/L	
3.	<i>S. altissima</i>	5	N	FACU	
4.	<i>Phalaris arundinacea</i>	10	Y	FACW	
5.	<i>Daucus carota</i>	7	Y	UPL	
6.	<i>Asclepias syriaca</i>	8	Y	UPL	
7.	<i>Phleum pratense</i>	10	Y	FACU	
8.	<i>Cornus racemosa</i>	10	Y	FAC	
9.					
10.					
73 = Total Cover					
Woody Vine Stratum (Plot size: 30-foot radius)					
_____ = Total Cover					

Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: PSA

Sampling Date: 31 AUG 2015
 Data Point ID: UP 2 (ext)

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

Depth (inches)	Matrix		Redux Features			Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	
0-20	10YR 3/3	100				Sandy loam with small few gravel

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: 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)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

N/A

Problematic Hydric Soil Indicators³

- 2 cm Muck (A10)
- Coast Prairie Redox (A16)
- 5 cm Mucky Peat or Peat (S3)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils F19)
- Mesic Spodic (TA6)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____
 Depth (inches): _____

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

Remarks: Historic ag. field - lighter colored soils. lots of roots

Wetland Determination

Hydrophytic Vegetation Present? Yes No
 Hydric Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Is this Sampling Point Within a Wetland? Yes No
 Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
 Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
 Is this Wetland Potentially Isolated? Yes No N/A
 Is the wetland mapped in the NWI? Yes No
 Is the wetland a mapped state wetland? Yes No
 If yes, indicate classification _____
 If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: US DVA

Data Point ID (i.e. 2W@Wet. G): W3 (ext)

**DATA FORM
ROUTINE WETLAND DETERMINATION**

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 26 AUG 2015

County: Genesee

State: New York Community: PEM

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS R. RUNG

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 2-4

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes X No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): 19
Depth to Water (inches): 19+

Stream Characteristics

Stream type: <u>Perennial</u>	Morphology: <u>Bank Width</u>	Stream Gradient: <u>Gentle</u>	Substrate: <u>Bed Rock</u>	Flow: <u>No Flow</u>
<u>Intermittent</u>	<u>Stream Width</u>	<u>Moderate</u>	<u>Boulder</u>	<u>Gentle</u>
	<u>Water Depth</u>	<u>Steep</u>	<u>Cobble</u>	<u>Moderate</u>
			<u>Gravel</u>	<u>Heavy</u>

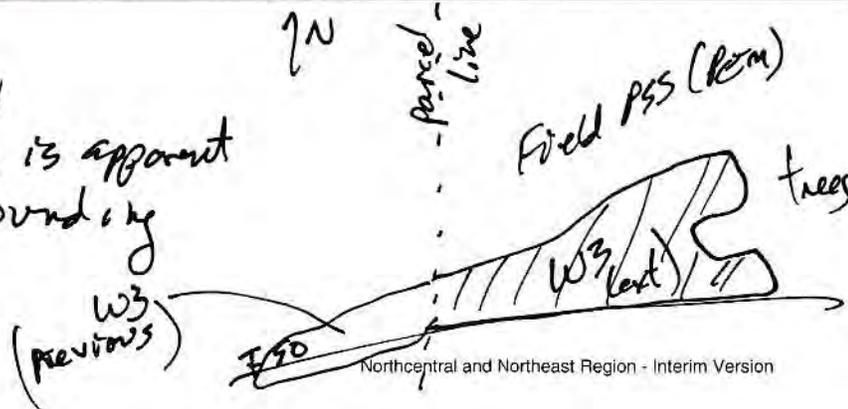
Adjacent Community Type: _____ N/A

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

Emergent wetland w/ small cattail component. Wetland basin is apparent & depressional from su surrounding areas.



Project Number: 60345076
 Applicant: USDVA

Sampling Date: 26 AUG 15
 Data Point ID: W3 (ext)

Vegetation				Dominance Test worksheet:			
<u>Tree Stratum</u> (Plot size: 30-foot radius)				Absolute % Cover	Dominant Species?	Indicator Status	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
1.	_____	_____	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
2.	_____	_____	_____	_____	_____	_____	
3.	_____	_____	_____	_____	_____	_____	
4.	_____	_____	_____	_____	_____	_____	
5.	_____	_____	_____	_____	_____	_____	
				_____ = Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
<u>Sapling/Shrub Stratum</u> (Plot size: 15-foot radius)				Prevalence Index worksheet:			
1. _____				Total % Cover of:	Multiply by:		
2. _____				OBL species _____	x 1 = _____		
3. _____				FACW species _____	x 2 = _____		
4. _____				FAC species _____	x 3 = _____		
5. _____				FACU species _____	x 4 = _____		
				UPL species _____	x 5 = _____		
				Column Totals: _____	(A)	_____	(B)
				Prevalence Index = B/A = _____			
<u>Herb Stratum</u> (Plot size: 5-foot radius)				Hydrophytic Vegetation Indicators:			
1. <u><i>Phalaris arundinacea</i></u>				30	Y	FACW	<input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test >50% <input type="checkbox"/> Prevalence Index is $\leq 3.0^1$ <input type="checkbox"/> Morphological Adaptations ¹ (provide supporting data in remarks) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (explain in remarks) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Juncus canadensis</i></u>				15	Y	OBL	
3. <u><i>Scirpus cyperinus</i></u>				10	Y	OBL	
4. <u><i>Cyperus strigosus</i></u>				10	Y	FACW	
5. <u><i>Juncus</i> spp.</u>				5	N	FACW	
6. _____							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.
7. _____							
8. _____							
9. _____							
10. _____							
				_____ = Total Cover		Remarks Different vegetation components to this wetland- (i.e. monoculture of CI)	
<u>Woody Vine Stratum</u> (Plot size: 30-foot radius)							
1. _____							
2. _____							
3. _____							
4. _____							
5. _____							
				_____ = Total Cover			

Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: CaA

Sampling Date: 26 AUG 2015
 Data Point ID: W3 (ext)

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

Depth (inches)	Matrix		Redux Features			Texture, Structure, Other	
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²		Loc ³
0-2	10YR2/1	100					muck / veg detrit / organic
2-18	10YR2/2	90	10YR5/6	f	c	m	silty loam w/ ok root zones
18-20	7.5YR2/1	90	7.5YR5/6	f	c	m	clayish clay with colored sand inclusions.

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: 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)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Problematic Hydric Soil Indicators³

- 2 cm Muck (A10)
- Coast Prairie Redox (A16)
- 5 cm Mucky Peat or Peat (S3)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils F19)
- Mesic Spodic (TA6)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in remarks)

Restrictive Layer (if observed)

Type: _____
 Depth (inches): _____

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

Remarks
 clayish material in bottom horizon.

Wetland Determination

Hydrophytic Vegetation Present? Yes No
 Hydric Soil Present? Yes No
 Wetland Hydrology Present? Yes No
 Is this Sampling Point Within a Wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A
 Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A
 Is this Wetland Potentially Isolated? Yes No N/A

Is the wetland mapped in the NWI? Yes No
 Is the wetland a mapped state wetland? Yes No

If yes, indicate classification _____
 If yes, indicate wetland ID AK-15

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

DATA FORM

ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

Town: Fembroke

County: Genesee

State: New York

Sampling Date: 26 AUG 2015

Community: UPLAND (EMG)

Data Point ID (i.e. 2W@Wet. G): UP 3 (ext)

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS R. RUNG

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 3-5

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No _____
Saturated Conditions? Yes _____ No _____

N/A

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

Upland area adj to W3 (ext) - north.
Area is emergent to slumbly & uplope from wetland area.

Project Number: 60345076
 Applicant: USDVA

Sampling Date: 26 AUG 2015
 Data Point ID: UP3 (cont)

Vegetation

Tree Stratum (Plot size: 30-foot radius)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Sapling/Shrub Stratum (Plot size: 15-foot radius)

	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>5</u>	<u>N</u>	<u>FAC</u>
2.			
3.			
4.			
5.			

5 = Total Cover

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 = _____

Herb Stratum (Plot size: 5-foot radius)

	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>50</u>	<u>Y</u>	<u>FACU</u>
2.	<u>5</u>	<u>N</u>	<u>FACW</u>
3.	<u>10</u>	<u>Y</u>	<u>UPL</u>
4.	<u>5</u>	<u>N</u>	<u>N/C</u>
5.	<u>15</u>	<u>Y</u>	<u>FACU</u>
6.			
7.			
8.			
9.			
10.			

85 = Total Cover

Hydrophytic Vegetation Indicators:
 Rapid Test for Hydrophytic Vegetation
 Dominance Test >50%
 Prevalence Index is $\leq 3.0^1$
 Morphological Adaptations¹ (provide supporting data in remarks)
 Problematic Hydrophytic Vegetation¹ (explain in remarks)
¹Indicators 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.

Woody Vine Stratum (Plot size: 30-foot radius)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

_____ = Total Cover

Remarks
Upland veg. w/ some RC grass. all upslope.

Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: PsB

Sampling Date: 26 AUG 15
 Data Point ID: UP3

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

Depth (inches)	Matrix		Redox Features			Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	
0-18	10YR 3/3	100				Sandy loam w/ some gravel.

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: 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)

- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Problematic Hydric Soil Indicators³

- 2 cm Muck (A10)
- Coast Prairie Redox (A16)
- 5 cm Mucky Peat or Peat (S3)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils F19
- Mesic Spodic (TA6)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in remarks)

Restrictive Layer (if observed)

Type: Rock / clay?
 Depth (inches): 18

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

Remarks: Homogeneous soil profile with little activity. (old ag. soils.)

Wetland Determination

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No

Wetland Hydrology Present? Yes No

Is this Sampling Point Within a Wetland? Yes No

Is the wetland mapped in the NWI? Yes No

Is the wetland a mapped state wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A

Is this Wetland Potentially Isolated? Yes No N/A

If yes, indicate classification _____

If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202
Project Number: 60345076

**DATA FORM
ROUTINE WETLAND DETERMINATION**

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 28 AUG 2015
County: Genesee
State: New York Community: PEM/PSS/PFO

Data Point ID (i.e. 2W@Wet. G): W6

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS R. RUNG

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 1-3

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes X No _____

Depth of Water (inches): _____
Depth to Sat. Soil (inches): 19
Depth to Water (inches): _____

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

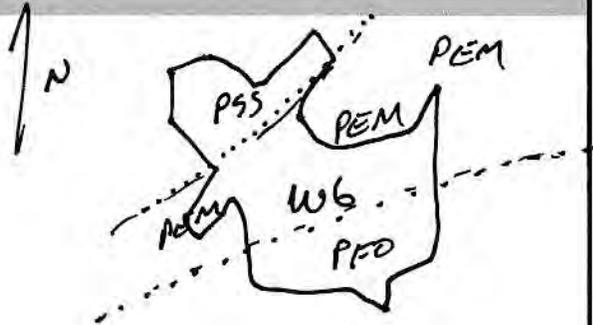
Adjacent Community Type: _____ N/A

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

W6 spans a PEM, PSS, & PFO area. - Forestal component is hemlock w/ aspens - Ro. dogwood in PSS - mostly s.fern in PEM. Access road cuts through the middle.



Project Number: 60345076
 Applicant: USDVA

Sampling Date: 28 AUG 2015
 Data Point ID: W6

Vegetation

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30-foot radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

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

	Absolute % Cover	Dominant Species?	Indicator Status
Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1.	10	Y	FACW
2.	10	Y	FACW
3.			
4.			
5.			
	20 = Total Cover		

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 = _____

	Absolute % Cover	Dominant Species?	Indicator Status
Herb Stratum (Plot size: 5-foot radius)			
1.	20	Y	FACW
2.	5	N	FACW
3.	10	Y	FACW
4.	3	N	N/L
5.	3	N	FACU
6.	2	N	FACU
7.	10	Y	FACW
8.			
9.			
10.			
	53 = Total Cover		

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test >50%

___ Prevalence Index is $\leq 3.0^1$

___ Morphological Adaptations¹ (provide supporting data in remarks)

___ Problematic Hydrophytic Vegetation¹ (explain in remarks)

¹Indicators 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.

Remarks

Area on edge of PEM (accessed) & PFO component!

	Absolute % Cover	Dominant Species?	Indicator Status
Woody Vine Stratum (Plot size: 30-foot radius)			
1.	3	N	FACU
2.			
3.			
4.			
5.			
	3 = Total Cover		

Project Number: 60345076
 Applicant: USDUA
 Soil Map Unit: N9A

Sampling Date: 28 AUG 2015
 Data Point ID: W6

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

Depth (inches)	Matrix		Redux Features				Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	Loc ³	
0-2	10YR 2/1	100					dry muck, silty loam w/ organics
2-14	10YR 2/2	95	10R 3/6	MA	D	PL	sandy loam
14-20	10YR 5/1	90	10YR 4/6	F	C	M	w/ ex root zones depleted sandy loam

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input checked="" type="checkbox"/> Hydrogen Sulfide (A4) <i>light</i> <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input checked="" type="checkbox"/> Sandy Gleyed Matrix (S4) <i>→ 10YR 5/1</i> <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)	Problematic Hydric Soil Indicators³ <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in remarks)	Restrictive Layer (if observed) Type: _____ Depth (inches): _____
---	--	--

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

Remarks: *(OP)* a variety of soil areas - silty to sandy with clay to clayish fringes.

Wetland Determination

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Hydrologic Connectivity to Off-site Wetlands? Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
Hydric Soil Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Wetland Potentially Isolated? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Is the wetland mapped in the NWI? Yes No
 Is the wetland a mapped state wetland? Yes No

If yes, indicate classification: PE 01. S51C
 If yes, indicate wetland ID: _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60345076

Applicant: USDVA

DATA FORM

ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 28 AUG 2015

County: Genesee

State: New York Community: UP (emerged)

Data Point ID (i.e. 2W@Wet. G): UP 6

Nearest Flag to Data Point: _____

Investigator(s): J. LYONS R. RUNG

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 2-4

Hydrology

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- 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)

N/A

- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations

Inundation Present? Yes _____ No X
Saturated Conditions? Yes _____ No X

Depth of Water (inches): _____
Depth to Sat. Soil (inches): _____
Depth to Water (inches): _____

Stream Characteristics

<u>Stream type:</u>	<u>Morphology:</u>	<u>Stream Gradient:</u>	<u>Substrate:</u>	<u>Flow:</u>
Perennial	Bank Width _____	Gentle _____	Bed Rock _____	No Flow _____
Intermittent	Stream Width _____	Moderate _____	Boulder _____	Gentle _____
	Water Depth _____	Steep _____	Cobble _____	Moderate _____
			Gravel _____	Heavy _____

Adjacent Community Type: _____

N/A

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel
- Other _____

Remarks

Upland area adjacent to W6. - slightly elevated from wetland basin.
Upland areas include:
emergent shrub forest.

Project Number: 60345076
 Applicant: USDVA

Sampling Date: 28 AUG 2015
 Data Point ID: UP6

Vegetation

<u>Tree Stratum</u> (Plot size: 30-foot radius)			
	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

<u>Sapling/Shrub Stratum</u> (Plot size: 15-foot radius)			
	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

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 = _____

<u>Herb Stratum</u> (Plot size: 5-foot radius)			
	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>25</u>	<u>Y</u>	<u>FACU</u>
2.	<u>5</u>	<u>N</u>	<u>N/L</u>
3.	<u>5</u>	<u>N</u>	<u>FACW</u>
4.	<u>10</u>	<u>Y</u>	<u>UPL</u>
5.	<u>15</u>	<u>Y</u>	<u>FACU</u>
6.	<u>5</u>	<u>N</u>	<u>FACU</u>
7.	<u>5</u>	<u>N</u>	<u>FACW</u>
8.			
9.			
10.			

Hydrophytic Vegetation Indicators:
 Rapid Test for Hydrophytic Vegetation
 Dominance Test >50%
 Prevalence Index is $\leq 3.0^1$
 Morphological Adaptations¹ (provide supporting data in remarks)
 Problematic Hydrophytic Vegetation¹ (explain in remarks)
¹Indicators 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.

<u>Woody Vine Stratum</u> (Plot size: 30-foot radius)			
	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

Remarks Forested section has a gapping upon canopy.
- Emergent area picked for data.
area has been mowed recently.

Project Number: 60345076
 Applicant: USDVA
 Soil Map Unit: CaA

Sampling Date: 28 AUG 2015
 Data Point ID: UP6

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

Depth (inches)	Matrix		Redux Features			Texture, Structure, Other
	Color (moist)	%	Color (moist)	Frequency ¹	Type ²	
0-2	10YR 3/2	100				sandy loam / roots
2-18	10YR 3/3	100				sandy loam w/ few small gravel

¹Frequency: F=Few, MA=Moderately Abundant, C=Common
²Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
³Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	Problematic Hydric Soil Indicators ³	Restrictive Layer (if observed)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) N/A <input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Piedmont Floodplain Soils F19) <input type="checkbox"/> Mesic Spodic (TA6) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in remarks)
		Type: <u>rock/gravel</u> Depth (inches): <u>18</u>

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

Remarks
 Soil colors are lighter with some small gravel. May indicate past plowing/filling activities. (horizon mixing).

Wetland Determination

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No

Wetland Hydrology Present? Yes No

Is this Sampling Point Within a Wetland? Yes No

Is the wetland mapped in the NWI? Yes No

Is the wetland a mapped state wetland? Yes No

Hydrologic Connectivity to Off-site Wetlands? Yes No N/A

Does Any Part of this Delineated Wetland/Stream Extend Past the Flagged Boundary? Yes No N/A

Is this Wetland Potentially Isolated? Yes No N/A

If yes, indicate classification _____

If yes, indicate wetland ID _____

AECOM

257 West Genesee Street
Suite 400
Buffalo, New York 14202

Project Number: 60348026

Applicant: USDVA

Data Point ID (i.e. 2W@Wet. G): S-1

DATA FORM

ROUTINE WETLAND DETERMINATION

Northcentral and Northeast Regional Supplement

Town: Pembroke Sampling Date: 26 AUG 15

County: Genesee

State: New York Community: STREAM

Nearest Flag to Data Point: DEM/PSS/PTO

Investigator(s): J. Lyons R. Runo

Landform: Hillside/Seep Toe of Slope Depressional Riparian

Landscape Position: Flat Undulating Sloping Convex Concave

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No

Do Normal Circumstances exist on site? Yes No

Is the area a potential problem area? Yes No

Is the site significantly disturbed? Yes No

Approximate Slope (%): 3-5

Hydrology

DRAINAGE SWALE FOR AG. LANDS.

Primary Indicators (min. - 1 required; check all that apply)

- Surface Water (A1) in spots pooled
- High Water Table (A2)
- 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 (min. - 2 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 (D-1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Soils - CaA (LP, A)

Field Observations

Inundation Present? Yes X No in spots

Saturated Conditions? Yes X No in spots

Depth of Water (inches): 1" pools
Depth to Sat. Soil (inches): 1-12"
Depth to Water (inches): 0-12"

Stream Characteristics

Stream type: Morphology: 3' Stream Gradient: Gentle Substrate: Bed Rock Sand X Flow: No Flow X at time of inspection

Intermittent Stream Width 3-12' Moderate X Boulder Silt X Gentle Moderate Heavy

Water Depth 0-1" Steep Gravel Clay

Adjacent Community Type: _____

Instream Conditions:

- Obscured Banks
- Well Defined Banks
- Eroded/Undercut Bank
- Deep Pools
- Riffles & Pools
- Overhanging Vegetation
- Vegetated Channel in spots
- Other

Remarks

Moist soils under mostly dry channel -> seasonally flowy during snow/ice melt's heavy rain events. Most likely connected to ag. field ' drain tiles. Man-made drainage feature - connects to drainage swales in the west.

is unnamed trib to TONAWANDA CREEK

SEE FIG FOR LOCATION