Wetland Delineation Report
Dzus Fastener Company, Inc. (152033)
West Islip, New York

Operable Unit 3 – Willetts Creek Area &
Operable Unit 4 - Lake Capri

Prepared for

New York State Department of Environmental Conservation
Division of Environmental Remediation
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LIST OF ACRONYMS AND ABBREVIATIONS

ac	Acres
AOR	Area of review
bgs	Below ground surface
EA	EA Engineering, P.C. and its Affiliate EA Science and Technology
FAC	Facultative
FACU	Facultative upland
FACW	Facultative wetland
in.	inch(es)
lf	linear feet
NAD	North American Datum of 1983
No.	Number
NRCS	Natural Resource Conservation Service
NYSDEC	New York State Department of Environmental Conservation
NWI	National Wetlands Inventory
OBL	Obligate wetland
OHWM	Ordinary high water mark
OU	Operable unit
PEM	Palustrine Emergent
PFO	Palustrine Forested
RD	Remedial design
WA	Work assignment
WET	Wetland
WUS	Waters of the United States
UPL	Upland
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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1. INTRODUCTION

EA Engineering, P.C. and its affiliate EA Science and Technology (EA), under Contract to the New York State Department of Environmental Conservation (NYSDEC) (Work Assignment Number [No.] D007624-33) was tasked to perform a Wetland Delineation at the Dzus Fastener Company, Inc. site (NYSDEC Site Number No. 152033) located in West Islip, Suffolk County, New York. The site is listed as a Class "2" in the State Registry of Inactive Hazardous Waste Sites (list of State Superfund sites); this site represents a significant threat to public health or the environment, and action is required. The site consists of four operable units (OUs) defined as follows:

- OU1 consisted of the leaching pools (the source) and areas of soil contamination at the facility. A Record of Decision (ROD) for OU1 was issued for this OU by NYSDEC in March 1995. The selected remedy consisted of *in situ* stabilization/solidification for onsite soils containing cadmium at concentrations greater than 10 parts per million (ppm).

- OU2 is comprised of the offsite contamination including sediment and water contamination for a section of Willetts Creek and Lake Capri. A ROD for OU2 was issued for this OU by NYSDEC in October 1997. The selected remedy included dredging, dewatering, and offsite disposal of contaminated sediments from Lake Capri; excavation and offsite disposal of sediment from Willetts Creek exceeding 9 ppm.

- OU3 encompasses the area of offsite impacted wetlands located behind a strip mall on Union Boulevard and inclusive of the Willetts Creek channel upstream of Lake Capri, found to be contaminated during routine post-remedial action effectiveness sampling (AECOM 2016).

- OU4 encompasses Lake Capri which is located downstream of Willetts Creek which has been included into the remedial design in 2018.

OU3 and OU4 are the focus of this Wetland Delineation Report which includes Lake Capri and the section of Willetts Creek upstream of the Lake.

The WA is being conducted under the NYSDEC State Superfund Standby Contract (WA Number (No.) D007624-26). In order to obtain the necessary permits associated with remedial activities at the site, EA conducted a review and delineation of the wetlands and/or Waters of the United States (WUS) located within and adjacent to OU3 and OU4.

2. RESEARCH OF AVAILABLE DOCUMENTS

2.1 SITE BACKGROUND

The subject site is located at 425 Union Boulevard, West Islip, Suffolk County, New York. The site is approximately 4 acres in size and is located in a mixed residential, commercial, and industrial area (Figure 1). The site is bounded by Union Boulevard to the south, the former Dzus Fastener Company, Inc. facility and Beach Street to the west, and Long Island railroad tracks to the north. Immediately to the east of the site is Willetts Creek which flows south into Lake Capri, an 8-acre man-made lake. Lake Capri drains into the tidal portion of Willetts Creek through a culvert located under Montauk Highway (Figure 2). In its course, Willetts Creek flows past the Beach Street Middle School and the West Islip Senior High School, both on the creek's west bank. From the Dzus property down to the tidal portion of Willetts Creek, the east bank of the creek is surrounded by low-lying private residential properties. The west bank, beyond the schools, is also lined by private residences.

Prior to conducting the wetland delineation in the field, relevant site-specific data for the habitat evaluation area was reviewed to identify the likely location of potential wetlands and streams.

2.2 UNITED STATES GEOLOGICAL SURVEY TOPOGRAPHIC MAP

The United States Geological Survey (USGS) Topographic Map for the AOR (Figure 3) was used as a reference to identify possible wetlands and waterways on the property. Topographic maps identify elevations, forested areas, streams, ponds, roads and structures. The USGS Topographic Map depicts the majority of the riparian area as developed with a single blue-line stream down the center of the AOR and one open water feature on the southern portion of the AOR. Willetts Creek is identified on the USGS Topographic Map as a blue-line stream and the open water feature is identified as Lake Capri.

2.3 SOIL SURVEY INFORMATION

The online Natural Resource Conservation Service's (NRCS) Web Soil Survey for Suffolk County was reviewed for the AOR (Figure 4). The Soil Survey identifies three soil mapping units within the AOR and are identified in Table 1. According to the Soil Survey, no hydric soil units occur within the AOR.

Table 1 Area of Review Soils

Soil – Mapping Unit	Symbol	Hydric Soil
Cut and fill land, gently sloping	CuB	Not Hydric
Riverhead and Haven soils, graded, 0-8 percent slopes	RhB	Not Hydric
Urban land	Ur	Not Hydric
Source: Adapted from the United States Department of Agriculture (NRCS 2018)		

2.4 NATIONAL WETLAND INVENTORY MAP

EA's environmental scientists reviewed wetland data from the United States Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI) Mapper. The NWI Map (Figure 5) identifies four NWI wetlands within the AOR, which are each classified with a Cowardin designation. Willetts Creek is identified as a riverine wetland on the NWI map and Lake Capri is identified as a palustrine unconsolidated bottom wetland, while the remaining two wetlands are identified as forested wetlands. Table 2 provides a list of the NWI wetland types identified within the AOR.

Table 2 Area of Review NWI Wetland

NWI Code	Cowardin Designation
PFO1C	Palustrine, Forested, Deciduous, Seasonally Flooded
PUBHh	Palustrine Unconsolidated Bottom, Permanently Flooded, Diked/Impounded
R2UBH	Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded
Source: Adapted from the NWI Map (USFWS 2018)	

3. METHODOLOGY

The wetland delineation was conducted in accordance with the "Routine Determination" procedures outlined in the 1987 Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0) (Environmental Laboratory 2012). This approach is based on the presence of three parameters (i.e., wetland hydrology, hydric soils, and hydrophytic vegetation) including indicators, delineation guidance, and other information that is specific to the Northcentral/Northeast Region. The United States Army Corps of Engineers (USACE) technical guidance for identifying wetlands requires that a positive wetland indicator be present for each of the three identified parameters except in limited instances identified as an atypical situation.

3.1 HYDROPHYTIC VEGETATION

Hydrophytic vegetation is defined in the USACE manual as a community of macrophytes that occurs in areas where inundation or soil saturation is either permanent or of sufficient frequency and duration to influence plant occurrence. A plant-community approach to evaluate vegetation is used; and therefore, hydrophytic vegetation decisions are based on the community of plant species growing in a particular area rather than the presence or absence of particular indicator species. Common wetland plant species have been categorized regionally by the USACE in the 2016 National Wetland Plant List (Lichvar, 2016). Each plant is classified into one of five categories as follows:

- Obligate (OBL) = Greater than 99 percent estimated probability of occurring in wetlands.
- Facultative Wetland (FACW) = 67 to 99 percent estimated probability of occurring in wetlands.
- Facultative (FAC) = 34 to 66 percent estimated probability of occurring in wetlands.
- Facultative Upland (FACU) = 1 to 33 percent estimated probability of occurring in wetlands.
- Upland (UPL) = less than 1 percent estimated probability of occurring in wetlands.

Plants that have an indicator status of OBL, FACW, or FAC are considered to be typically adapted for life in anaerobic soil conditions. When the dominant species in a plant community are typically adapted for life in anaerobic soil conditions, hydrophytic vegetation is present. Several indicators may be used to determine whether hydrophytic vegetation is present on a site; however, the presence of a single individual of a hydrophytic species does not mean that hydrophytic vegetation is present.

Evaluation of the vegetation begins with a rapid field test for hydrophytic vegetation to determine if there is a need to collect more detailed vegetation data. If the area is not dominated solely by OBL and FACW species, the standard dominance test is performed to determine if more than 50 percent of the dominant species are OBL, FACW, or FAC. Some wetland plant communities may not be considered hydrophytic based only on dominant species. Therefore, in those cases where indicators of hydric soil and wetland hydrology are present, the vegetation would be reevaluated with the prevalence index taking into account non-dominant plant species as well. A plant community is considered hydrophytic if one of these three criteria is met.

3.2 HYDRIC SOILS

Hydric soils are soils that are saturated, ponded, or flooded long enough during the growing season to develop anaerobic conditions in the upper portion of the soil column (typically within the upper 18 inches [in.]). The prolonged presence of water results in the chemical reduction of elements, particularly iron and manganese. Reduced soils often exhibit a gray (or gleyed) color that reflects either the leaching of elements or the presence of reduced elements (again, generally iron and manganese).

Hydric soils are often characterized by bright mottles, sometimes called redoximorphic features. Mottles are an indication of incomplete saturation. They typically represent isolated pockets where elements (mainly iron) have remained oxidized. Another feature of hydric soils is a low matrix chroma in the diagnostic zone, which is typically identified as the upper 18 in. of the soil layer, but may vary. For mineral hydric soils, the diagnostic zone typically must have a matrix chroma of two or less (for soils with mottles), or a matrix chroma of one or less (for soils without mottles). To make this determination, soil cores are collected in the field in suspected wetland areas and the soil colors are compared to a Munsell Soil Color Chart (Kollmorgen Instruments Corporation 1988). Other examples of field indicators for hydric soils include, but are not limited to, high organic content, histic epipedons, sandy redox, and/or depletions and are defined in the Regional Supplement to the Wetland Delineation Manual.

3.3 WETLAND HYDROLOGY

Wetland hydrology supplies the moisture required to support wetland vegetation and also creates the conditions necessary for the formation of hydric soils. Primary indicators of wetland hydrology include, but are not limited to, observed inundation or saturation, watermarks, drift deposits, sediment deposits, and water-stained leaves. Secondary indicators of wetland hydrology include, but are not limited to, drainage patterns, soil cracks, crayfish burrows, and the FAC-Neutral test. The FAC-Neutral test involves comparing the number of OBL and FACW plant species to the number of FACU and UPL plant species, with FAC species being neutral. If 50 percent or more of the plant species are OBL or FACW, the FAC-Neutral test is considered a secondary indicator of wetland hydrology. An area must contain at least one primary indicator or two secondary indicators of wetland hydrology for the criterion of wetland hydrology to be met.

3.4 STREAM CHANNELS

In addition to identifying wetlands, stream channels were flagged that would likely be considered jurisdictional stream channels were identified by the presence of a defined bed and bank, as well as a defined ordinary high-water mark (OHWM). Furthermore, identified stream channels were classified into one of three categories: perennial stream channels that typically flow year-round, intermittent stream channels that only flow seasonally, and ephemeral stream channels that typically flow less than seasonally. Ephemeral channels receive hydrology from surficial sources such as runoff from surrounding uplands during and immediately following precipitation events and/or snow melt (i.e., do not have a direct connection to groundwater and are not hydraulically connected to wetlands). Desktop information such as USGS maps and other materials were used to assist in classifying stream channels in addition to observations made during the site visits.

3.5 FIELD DATA COLLECTION

Locations for collection of formal data points and associated data forms were established onsite to evaluate the presence or absence of jurisdictional wetlands/waterways and to demonstrate the typical characteristics of uplands and wetlands along the line of delineation. Surrounding vegetative species and hydrologic indicators were observed at the sample locations. EA personnel collected soil to a depth of approximately 16 in. or until refusal was encountered to observe soil conditions and classify the soil as either hydric or non-hydric. Routine wetland determination data sheets were used to summarize observations on vegetation, soils, and hydrology for both the wetland and upland sample plots. Copies of these Wetland Data Sheets are included in Appendix A. Additionally, onsite photographs of the wetlands and streams identified were collected in the field and are included in Appendix B. In addition to the formal data point locations depicted on the Wetland Delineation Maps, soils and vegetation were routinely assessed along the wetland boundary to guide the placement of wetland flagging. Although data forms were not completed at these locations the observations of soil samples and rapid vegetation calculations along with presence or absence of hydrology were used to determine the boundary of wetlands throughout the site.

3.6 FIELD DELINEATION

On 11 and 12 March 2018, EA's wetland scientist and engineer performed a field delineation of the proposed project area and immediate surroundings (defined at the AOR) in order to evaluate whether wetlands and/or waterways were present at the project site. A second site visit was conducted on 14 September 2018 to delineate the area of Lake Capri which was added to the remedial design after the initial site visit. The field delineation consisted of identifying the limits of the wetlands and waterways with pink and black flagging, which were numbered sequentially. Wetland flag locations were located in the field with a handheld Trimble® GeoXT™ GPS unit with sub-meter horizontal accuracy and collected in the North American Datum of 1983 (NAD83), New York West State Plane Coordinate System. The field-mapped wetland/upland boundaries are shown on the Wetland Delineation Maps. Table 3 presents a summary of systems identified. Figure 6 provides an overview of Figures 7-12 for the mapped delineated features.

Table 3 Systems Identified Within the Area of Review

Systems	Type	Size (ac)	Length (lf)
Wetland A	Forested Wetland	0.71	—
Wetland B	Forested Wetland	0.08	—
Wetland C	Forested Wetland	0.04	—
Wetland D	Forested Wetland	0.01	—
Wetland E	Forested Wetland	0.39	—
Wetland F	Emergent Wetland	0.27	—
Wetland G	Emergent Wetland	0.06	—
Wetland H	Forested Wetland	0.04	—
Lake Capri	Open Water	7.91	—
Stream #1	Perennial Stream	2.15	4,033
Stream #2	Intermittent Stream	0.01	165

ac – acres
lf – linear feet

4. SYSTEMS IDENTIFIED

4.1 STREAM #1

Stream #1 was identified as a perennial channel originating at the northern end of the AOR from a large culvert. Stream #1 flows in a southerly direction through the AOR for approximately 4,033 feet before contributing to the northern end of Lake Capri. This stream is depicted as a blue-line stream on USGS Maps and is identified as Willetts Creek. EA's wetland scientists observed a defined bed and bank and an OHWM within the limits of the stream channel throughout the entire AOR and has an average estimated base flow less than 1 cubic foot per second, based on an installed pressure transducer monitored between March and May 2018. Multiple wetlands were identified along Stream #1, within the AOR and described in the following sections. Stream #1 was flagged in the field along the OHWM and depicted on the Wetland Delineation Maps.

4.2 WETLANDS A, B, D, AND E

Wetlands A, B, D, and E were identified as forested wetlands located directly along the banks of Stream #1. Wetlands A and B are located along the northern portion of the AOR, Wetland D is located on the southern portion of the AOR, and Wetland E is located on the central portion of the AOR. These wetlands were identified along lower benches along the stream channel and generally followed the toe of the slope along the urbanized areas to the east and west.

The primary source of hydrology for these four wetlands appear to be from groundwater. These forested wetlands consist of predominantly hydrophytic vegetation including red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), coastal sweet pepperbush (*Clethra alnifolia*), highbush blueberry (*Vaccinium corymbosum*), and skunk cabbage (*Symplocarpus foetidus*). The soil matrix within this area had a chroma value of two or less as well as redox features in the matrix. Wetland hydrology indicators within these four wetlands included saturated soils, water marks on trees, inundation, drainage patterns, and water stained leaves. These four wetlands were identified as directly abutting Stream #1.

These four wetlands are located between the existing stream and the upland urbanized areas. In general, the upland/wetland interface along the private properties and schools included a 1-3 foot slope and abrupt change in vegetation cover. The upland areas along the wetland interface consisted primarily of mowed lawns dominated by non-hydrophytic vegetation (common dandelion, white and red clover, fescue species, etc.).

4.3 WETLAND C

Wetland C is located on a low bench feature along the left bank of Stream #1 on the southern end of the AOR. Wetland C was identified as a narrow, forested wetland. Wetland C is dominated by red maple and sweet gum in the overstory with little to no understory with the exception of a dense stand of common reed (*Phragmites australis*). Wetland C appears to receive hydrology from surficial runoff from the surrounding residential properties as well as flood flow from

Stream #1. The soil within Wetland C had a chroma value of 2 with redox features around the pore linings.

Wetland hydrology indicators within Wetland C included saturated soils and drainage patterns. Wetland C was identified as a forested wetland directly abutting Stream #1. This wetland is bound by upland mowed residential yards to the east and Stream #1 to the west.

4.4 WETLAND F

Wetland F is located on the central portion of the AOR, along the left and right banks of Stream #1. Wetland F was identified as an emergent wetland. Wetland F is dominated a dense stand of common reed. Wetland F appears to receive hydrology from surficial runoff from the surrounding residential properties as well as flood flow from Stream #1. The soil within Wetland F had a chroma value of 2 with redox features around the pore linings. Wetland hydrology indicators within Wetland F included oxidized rhizospheres on living roots and drainage patterns. Wetland F was identified as an emergent wetland directly abutting Stream #1.

This wetland is located on a low benchlike feature along the stream with high steep slopes along the wetland/upland interface. The slopes along the wetland edge were dominated by common reed but lacked hydrologic indicators and did not contain hydric soils.

4.5 STREAM #2

Stream #2 was identified as an intermittent channel originating from a small concrete culvert near the northwest corner of Lake Capri along Ivy Court. Stream #2 flows in a southerly direction through the AOR for approximately 165 feet before contributing to the northwestern corner of Lake Capri. This stream is depicted as a portion of the open water lake on USGS Maps and is identified as Lake Capri. EA's wetland scientists observed a defined bed and bank and an OHWM within the limits of the stream channel. At the time of the site visit no baseflow was observed in the channel. Two wetlands (Wetland G and H) were identified as directly abutting Stream #2, within the AOR and described below. Stream #2 was flagged in the field along the OHWM and depicted on the Wetland Delineation Maps.

4.6 WETLAND G AND H

Wetland G is located between Stream #2 and Lake Capri on the southern end of the AOR. Wetland G was identified as an emergent and open water wetland which has formed from a constriction and backwater affect at the north end of Lake Capri. Wetland G is dominated by jewel weed (*Impatiens capensis*), sensitive fern (*Onoclea sensibilis*), and false nettle (*Bohemeria cylindrica*). A small elevated wetland bench dominated by larger trees and shrubs was identified along the eastern portion of the open water feature associated with Wetland G. Due to the change in vegetation cover this area was identified as Wetland H. Wetland H is a narrow forested wetland bench along the open water of Wetland G.

Wetland G and H appear to receive hydrology from surficial runoff from the surrounding residential properties as well as backwater from Lake Capri. The soil within Wetland G and H had a chroma value of 1 with redox features around the pore linings in the upper 12 inches.

Wetland hydrology indicators within Wetland G and H included inundation of 0-2 inches, saturated soils at the surface, and drainage patterns. Wetland G was identified as an emergent wetland directly abutting Stream #2 and Wetland H was identified as forested.

These two wetlands transition to upland areas which are comprised of mowed/maintained residential yards and are dominated by upland grasses and weeds. No indicators of hydrology where identified within the upland areas along the wetland/upland interface and soils consisted of brighter brown matrix colors with no redox features.

4.7 LAKE CAPRI

One large lacustrine wetland was identified at the southern end of the AOR and is identified as Lake Capri. This lacustrine wetland was delineated along the OHWM and is confined to the bank of the lake with no adjacent emergent features above the OHWM. The majority of the lake is surrounded by residential properties with mowed maintained lawns up to the bank of the lake. The southernmost end of the lake is bound by Montauk Highway and flows through an existing riser structure where it outfalls on the southern side of the highway to the tidal portion of Willetts Creek.

5. CONCLUSION

The streams and wetlands identified within the area of review, in EA's opinion, either exhibited characteristics of regulated waterways or all three wetland parameters as defined in the 2012 Regional Supplement Manual. Therefore, these areas were identified in the field and mapped on the Wetland Delineation Maps.

It is EA's professional opinion that there are jurisdictional non-tidal wetlands and streams present within the AOR. However, the USACE is the federal agency that determines the official jurisdictional status of wetlands/waterways. This report, including appendices should be submitted to the USACE in order to obtain a preliminary or final Jurisdictional Determination.

Furthermore, the NYSDEC and federal government have laws and regulations that govern wetlands which will require authorization from both agencies to impact these resources based on proposed remediation design.

6. REFERENCES

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FIGURES

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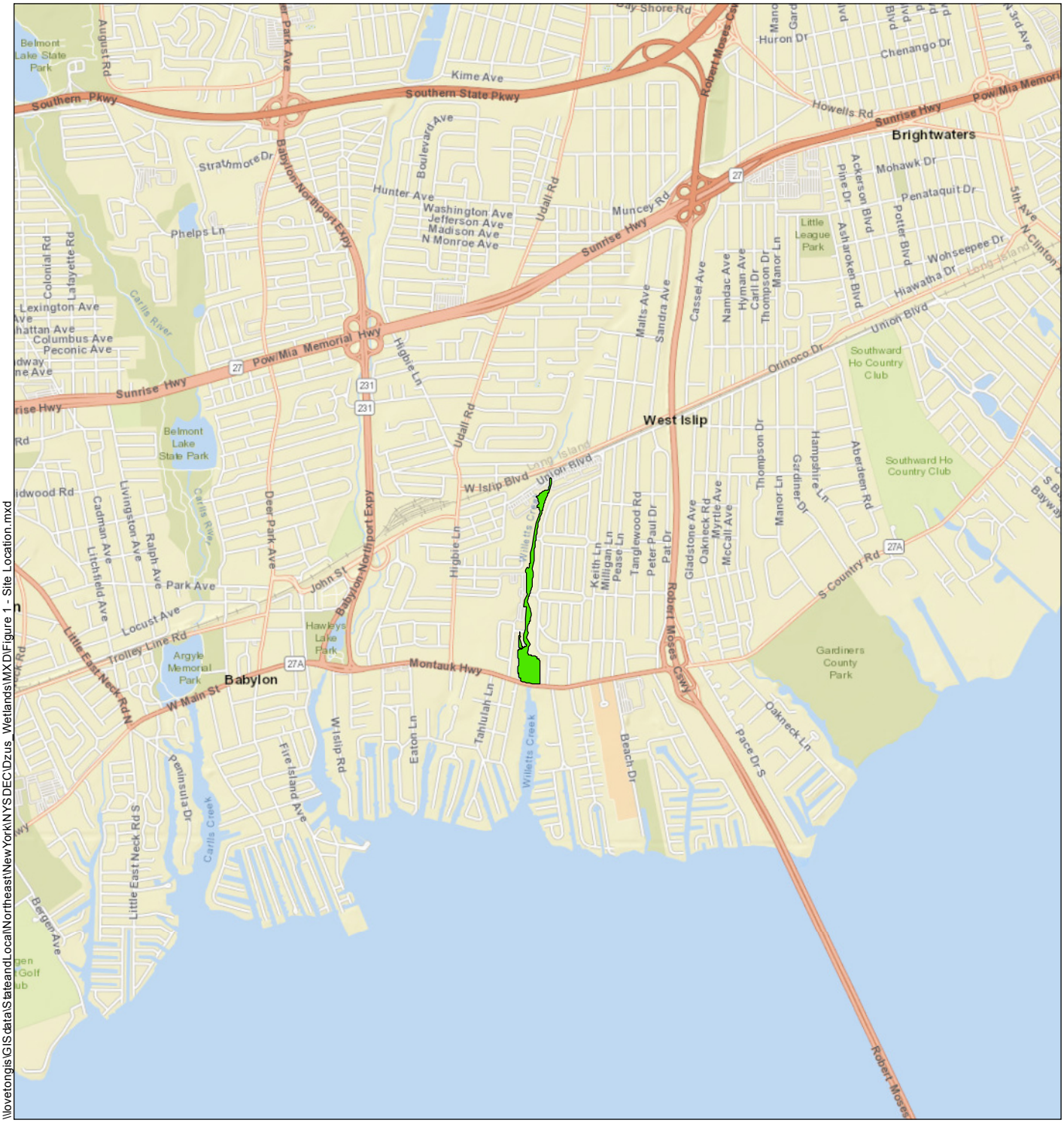

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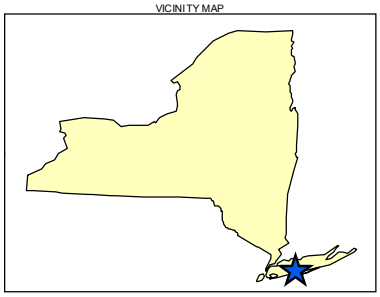

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Miles

1 inch = 1 miles

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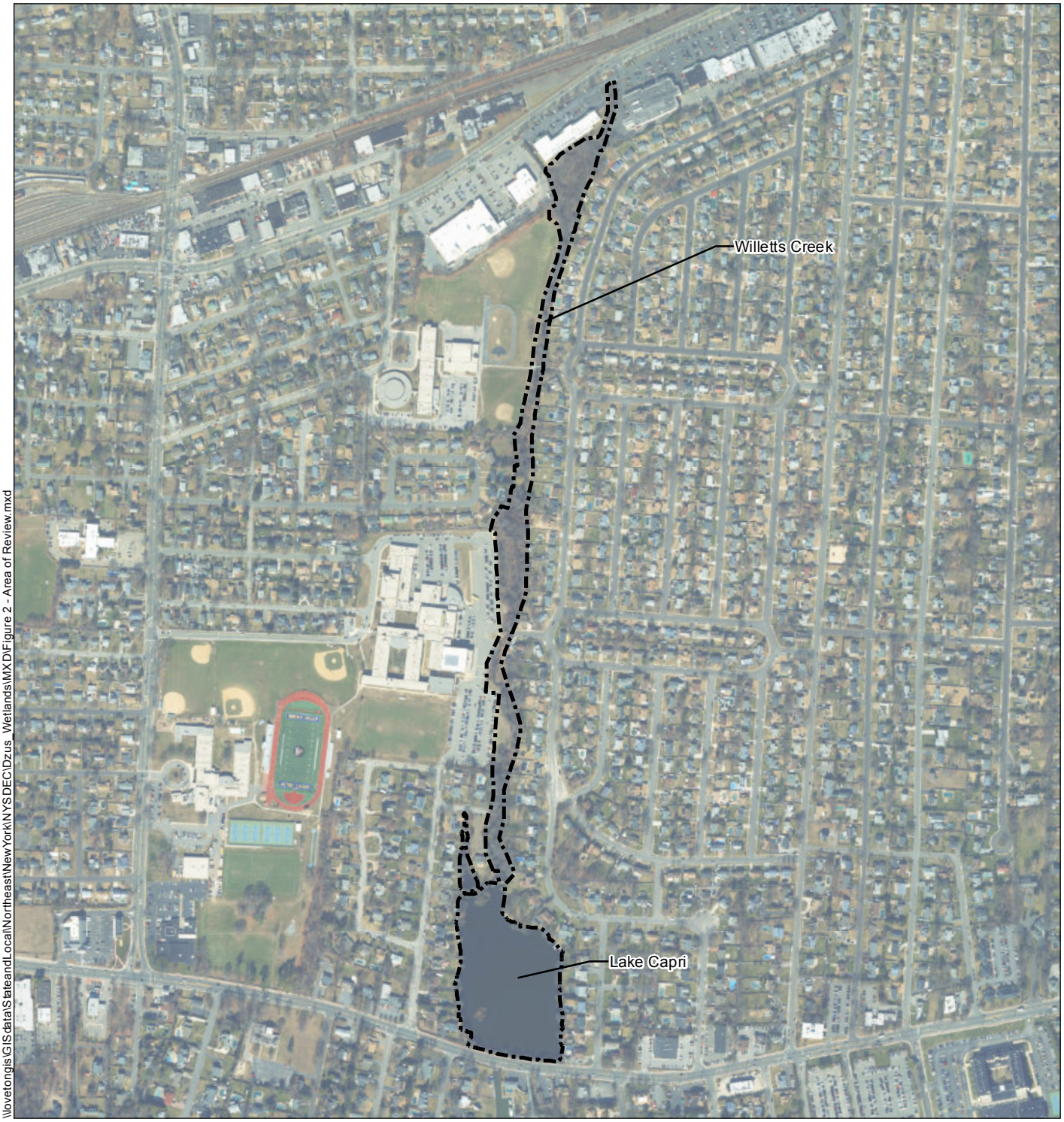
Legend

Area of Review (AOR)

Figure 1
Site Location
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 10/16/2018
Source: ESRI 2016
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation



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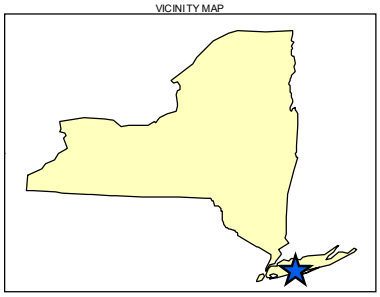

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Feet

1 inch = 700 feet

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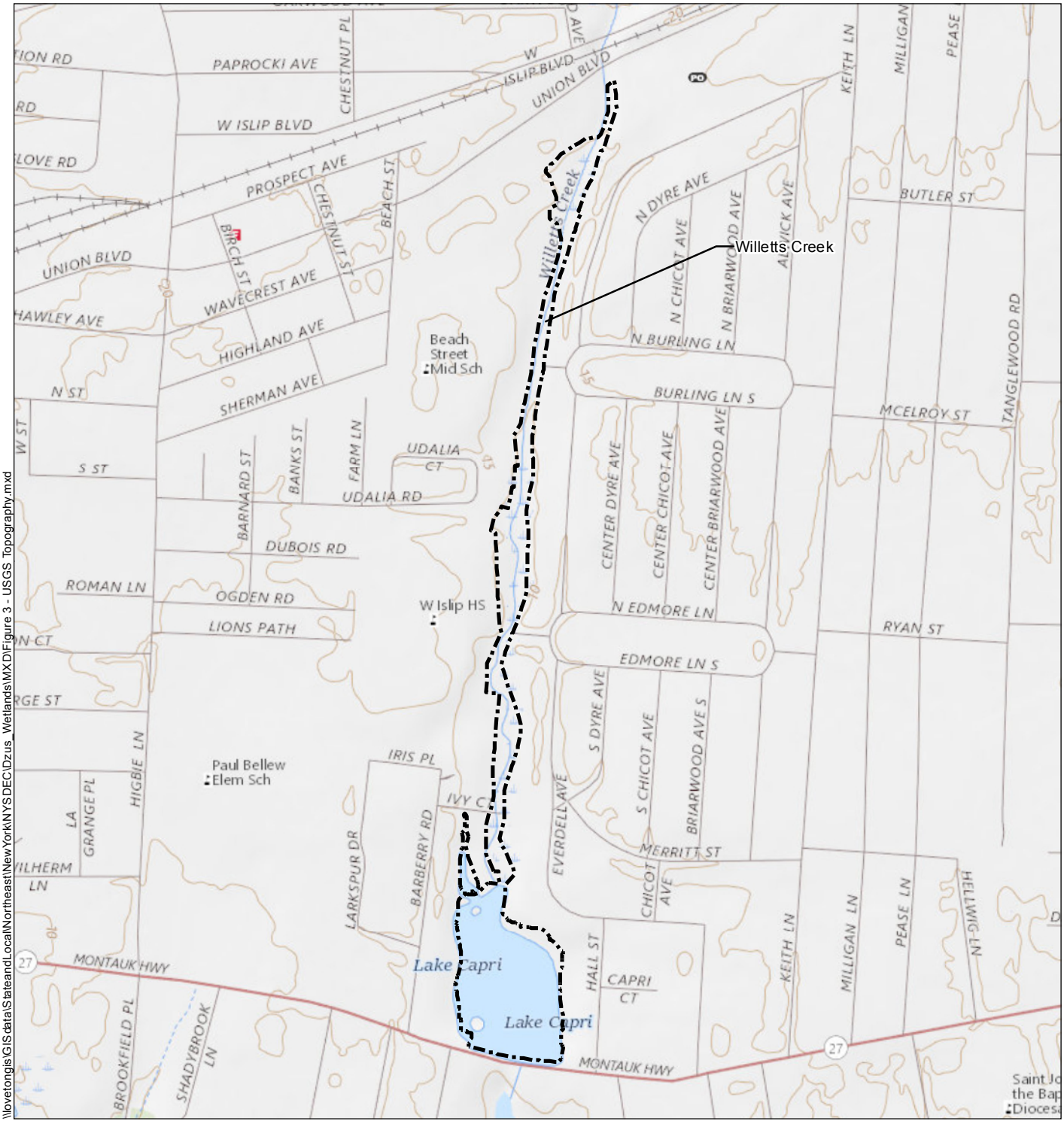
Legend

Area of Review (AOR)

Figure 2
Area of Review
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 10/16/2018
Source: ESRI 2016
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation



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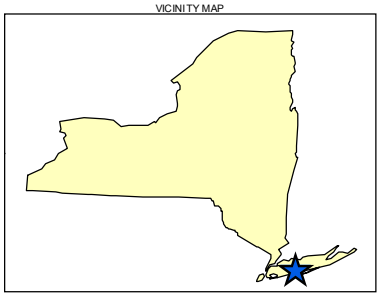

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1 inch = 700 feet

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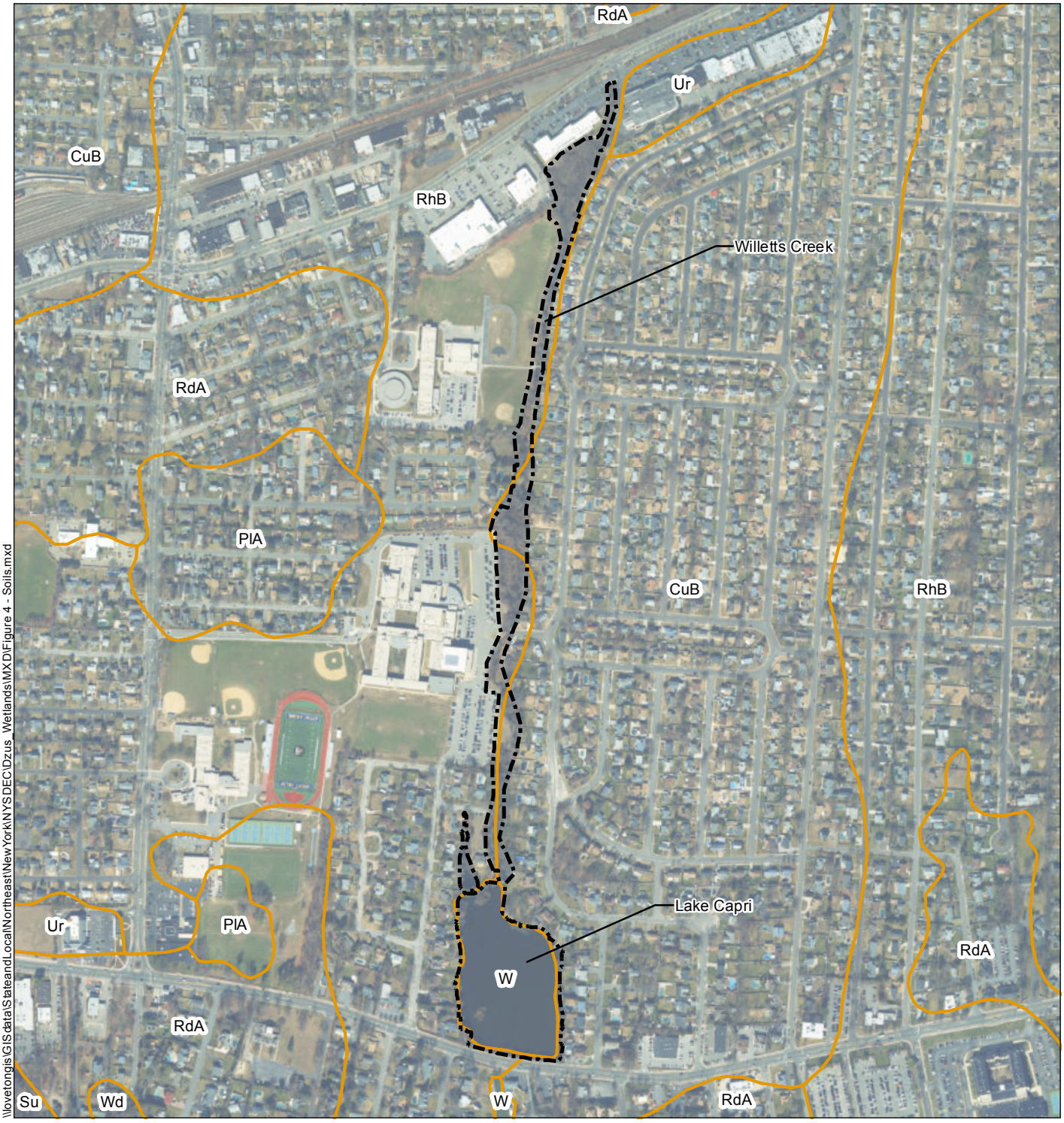
Legend

Area of Review (AOR)

Figure 3
USGS Topography
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

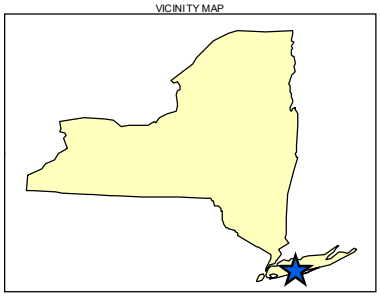
Map Date: 10/16/2018
Source: ESRI 2016
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation



\\lovetongis\GIS\data\StateandLocal\Northeast\NewYork\NYSDEC\Dzus_Wetlands\MXD\Figure 4 - Soils.mxd

VICINITY MAP



0 250 500 1,000
Feet

1 inch = 700 feet

N

Legend

Area of Review (AOR)

Soil Unit

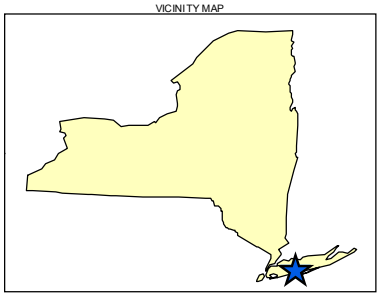
Figure 4
NRCS Soil Map Units
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 10/16/2018
Source: ESRI 2016, National Resources Conservation Service Soils
Projection: NAD 1983 State Plane New York Long Island FIPS 3104 Feet

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

\\lovetongis\GIS\data\StateandLocal\Northeast\NewYork\NYSDEC\Dzus_Wetlands\MXD\Figure 5 - NWI Wetlands.mxd

VICINITY MAP



0 250 500 1,000
Feet

1 inch = 700 feet

N

Legend

Area of Review (AOR)

Wetlands

Freshwater Forested/Shrub

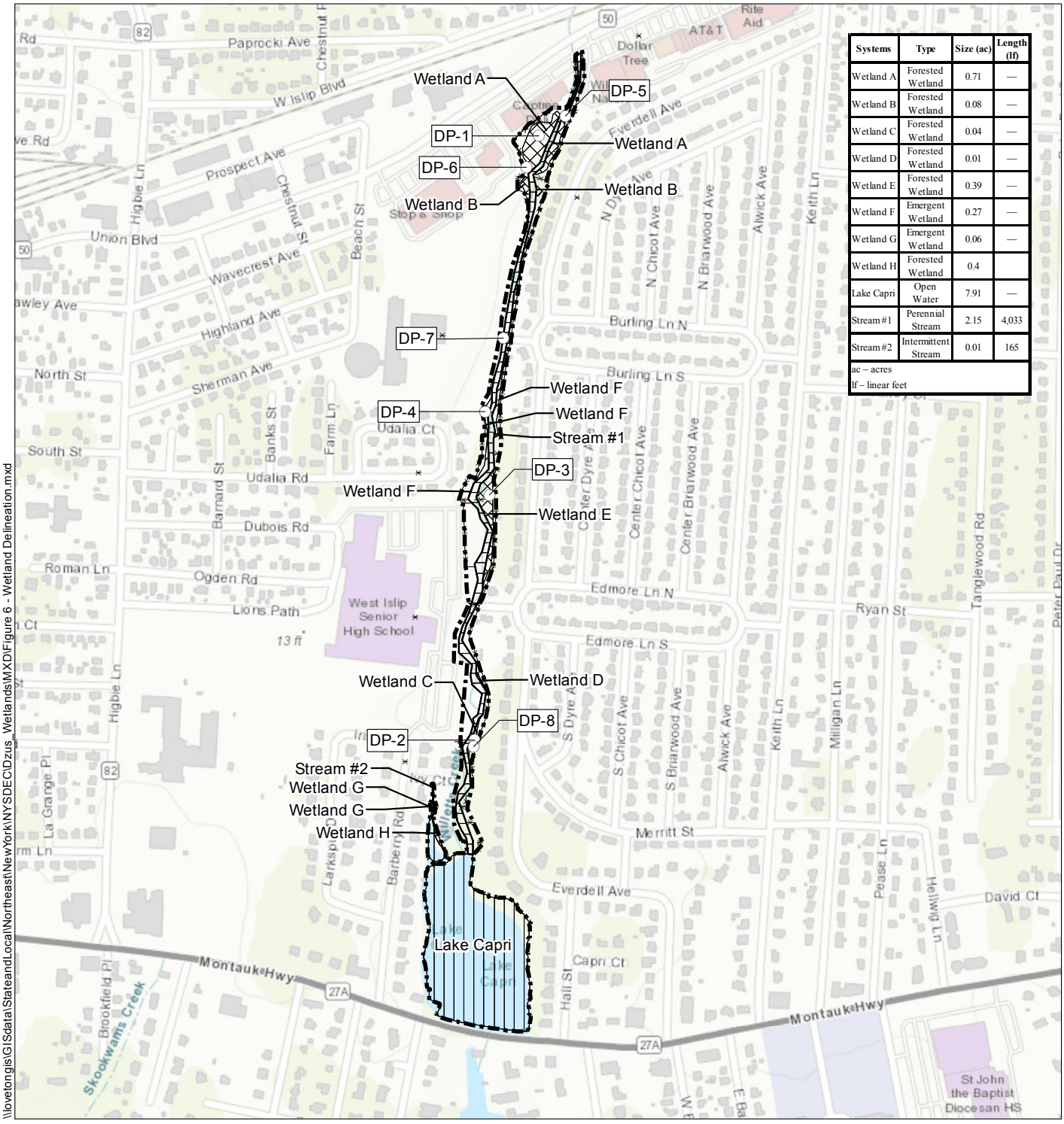
Freshwater Pond

Riverine

Figure 5
NWI Wetlands
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 10/16/2018
Source: ESRI 2016
National Wetland Inventory
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

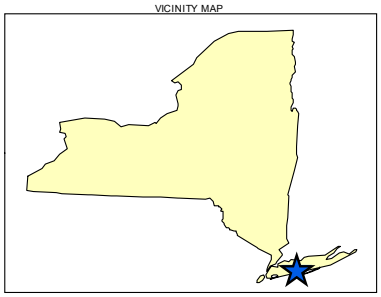


Systems	Type	Size (ac)	Length (lf)
Wetland A	Forested Wetland	0.71	—
Wetland B	Forested Wetland	0.08	—
Wetland C	Forested Wetland	0.04	—
Wetland D	Forested Wetland	0.01	—
Wetland E	Forested Wetland	0.39	—
Wetland F	Emergent Wetland	0.27	—
Wetland G	Emergent Wetland	0.06	—
Wetland H	Forested Wetland	0.4	
Lake Capri	Open Water	7.91	—
Stream #1	Perennial Stream	2.15	4,033
Stream #2	Intermittent Stream	0.01	165

ac – acres
lf – linear feet

\\lovetongis\GIS\data\StateandLocal\Northeast\NewYork\NYSDEC\Dzus_Wetlands\MXD\Figure 6 - Wetland Delineation.mxd

VICINITY MAP



0 250 500 1,000
Feet

1 inch = 700 feet

N

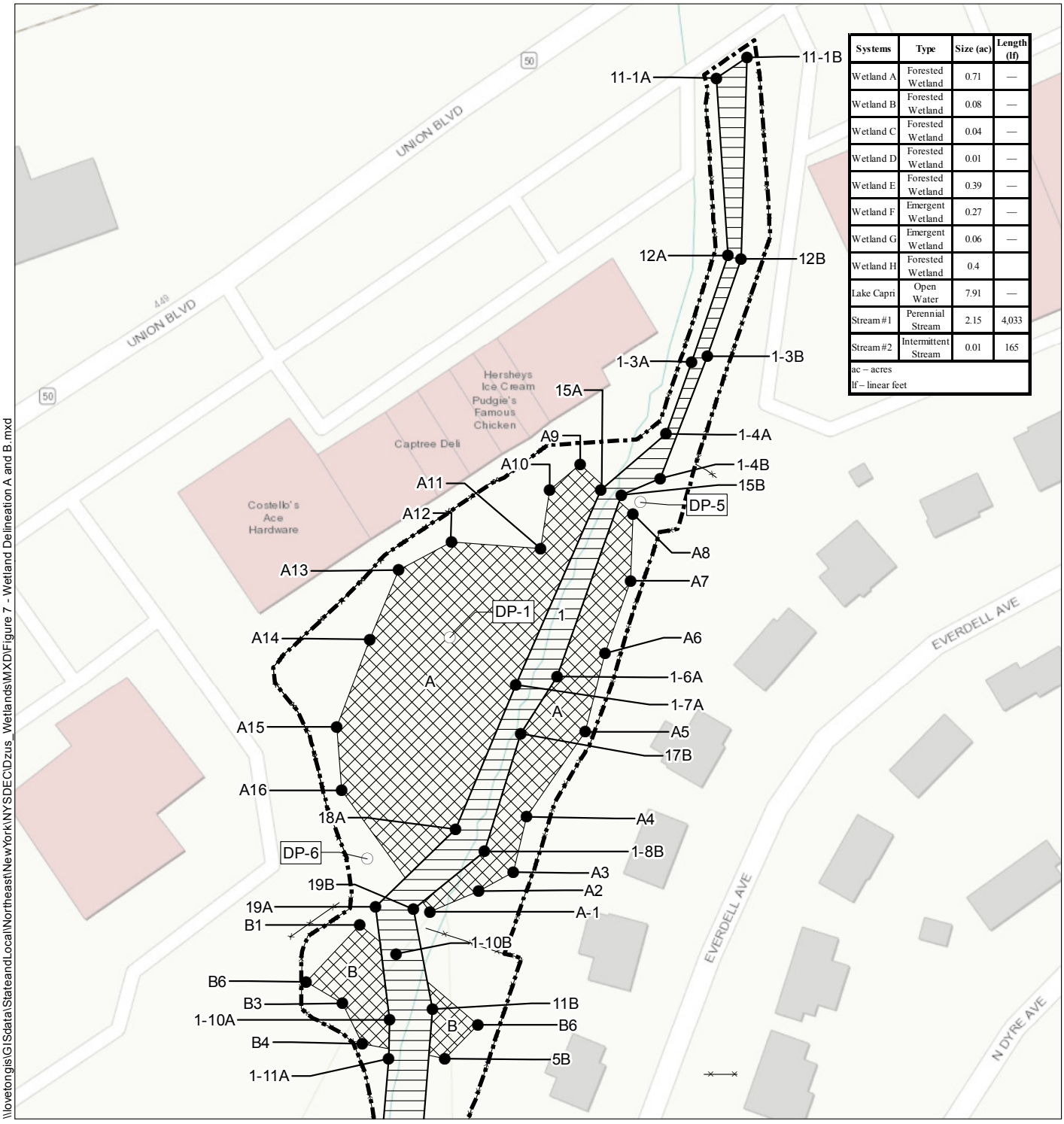
Legend

- Data Point
- Area of Review (AOR)
- Emergent Wetland
- Forested Wetland
- Stream Channel (OHWM)
- Open Water Wetland
- Fence Line

Figure 6
Wetland Delineation
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 12/3/2018
Source: ESRI 2016
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

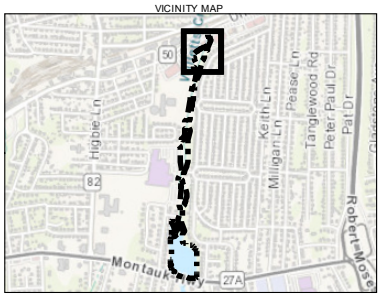


Systems	Type	Size (ac)	Length (lf)
Wetland A	Forested Wetland	0.71	—
Wetland B	Forested Wetland	0.08	—
Wetland C	Forested Wetland	0.04	—
Wetland D	Forested Wetland	0.01	—
Wetland E	Forested Wetland	0.39	—
Wetland F	Emergent Wetland	0.27	—
Wetland G	Emergent Wetland	0.06	—
Wetland H	Forested Wetland	0.4	
Lake Capri	Open Water	7.91	—
Stream #1	Perennial Stream	2.15	4,033
Stream #2	Intermittent Stream	0.01	165

ac – acres
lf – linear feet

\\lovetongis\GIS\data\StateandLocal\Northeast\NewYork\NYSDEC\Dzus_Wetlands\MXD\Figure 7 - Wetland Delineation A and B.mxd

VICINITY MAP



0 25 50 100
Feet

1 inch = 100 feet

N

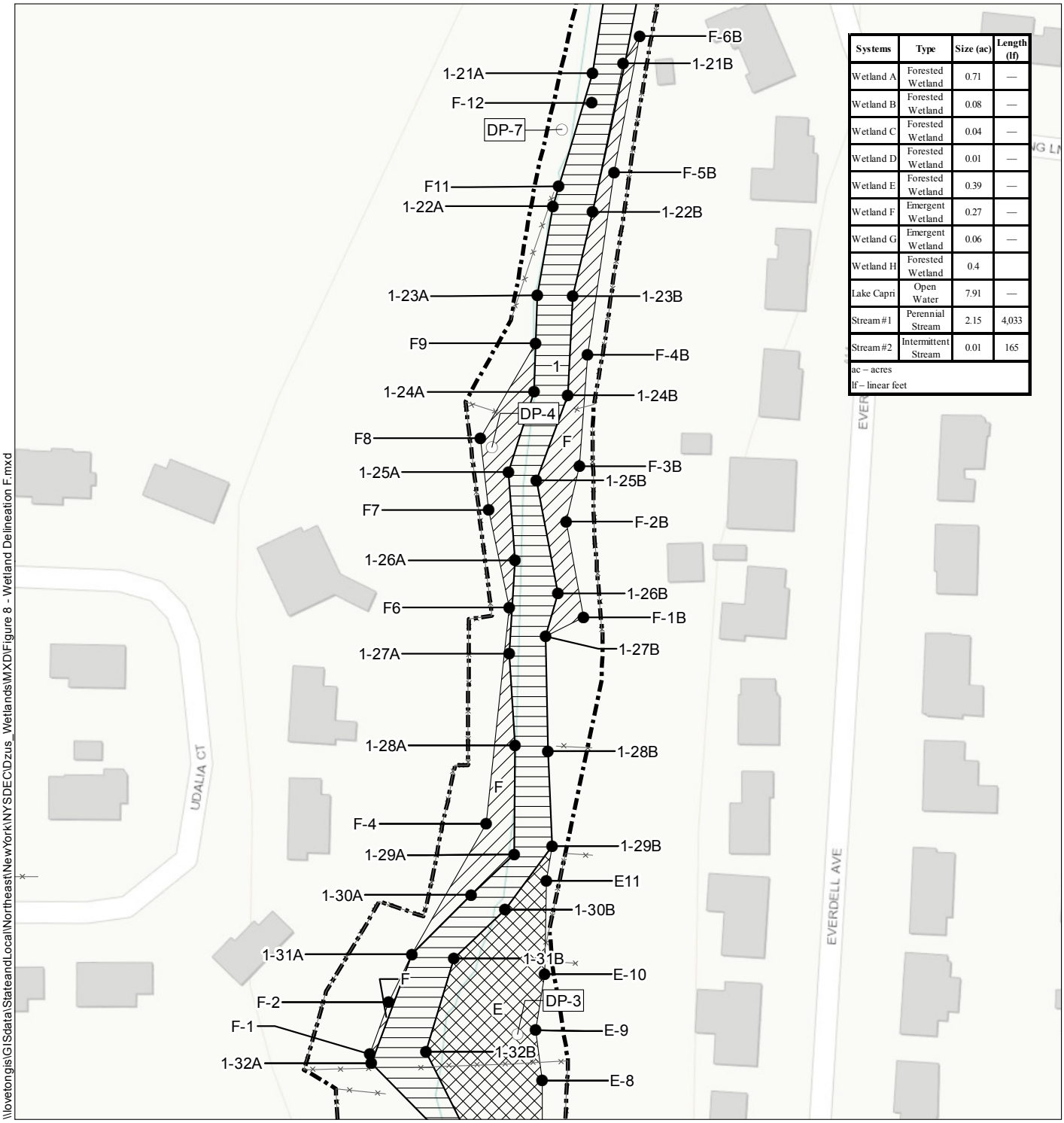
Legend

- Data Point
- Wetland Flag
- Area of Review (AOR)
- Forested Wetland
- Stream Channel (OHWM)
- Fence Line

Figure 7
Wetland A and B
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 12/3/2018
Source: ESRI 2016
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

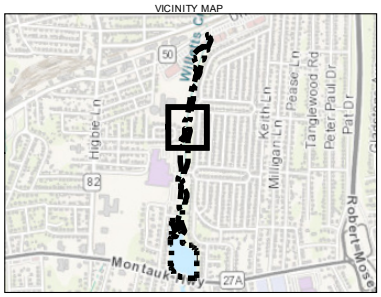


Systems	Type	Size (ac)	Length (lf)
Wetland A	Forested Wetland	0.71	—
Wetland B	Forested Wetland	0.08	—
Wetland C	Forested Wetland	0.04	—
Wetland D	Forested Wetland	0.01	—
Wetland E	Forested Wetland	0.39	—
Wetland F	Emergent Wetland	0.27	—
Wetland G	Emergent Wetland	0.06	—
Wetland H	Forested Wetland	0.4	
Lake Capri	Open Water	7.91	—
Stream #1	Perennial Stream	2.15	4,033
Stream #2	Intermittent Stream	0.01	165

ac – acres
lf – linear feet

\\lovetongis\GIS\data\StateandLocal\Northeast\NewYork\NYSDEC\Dzus_Wetlands\MXD\Figure 8 - Wetland Delineation F.mxd

VICINITY MAP



0 25 50 100
Feet

1 inch = 100 feet

N

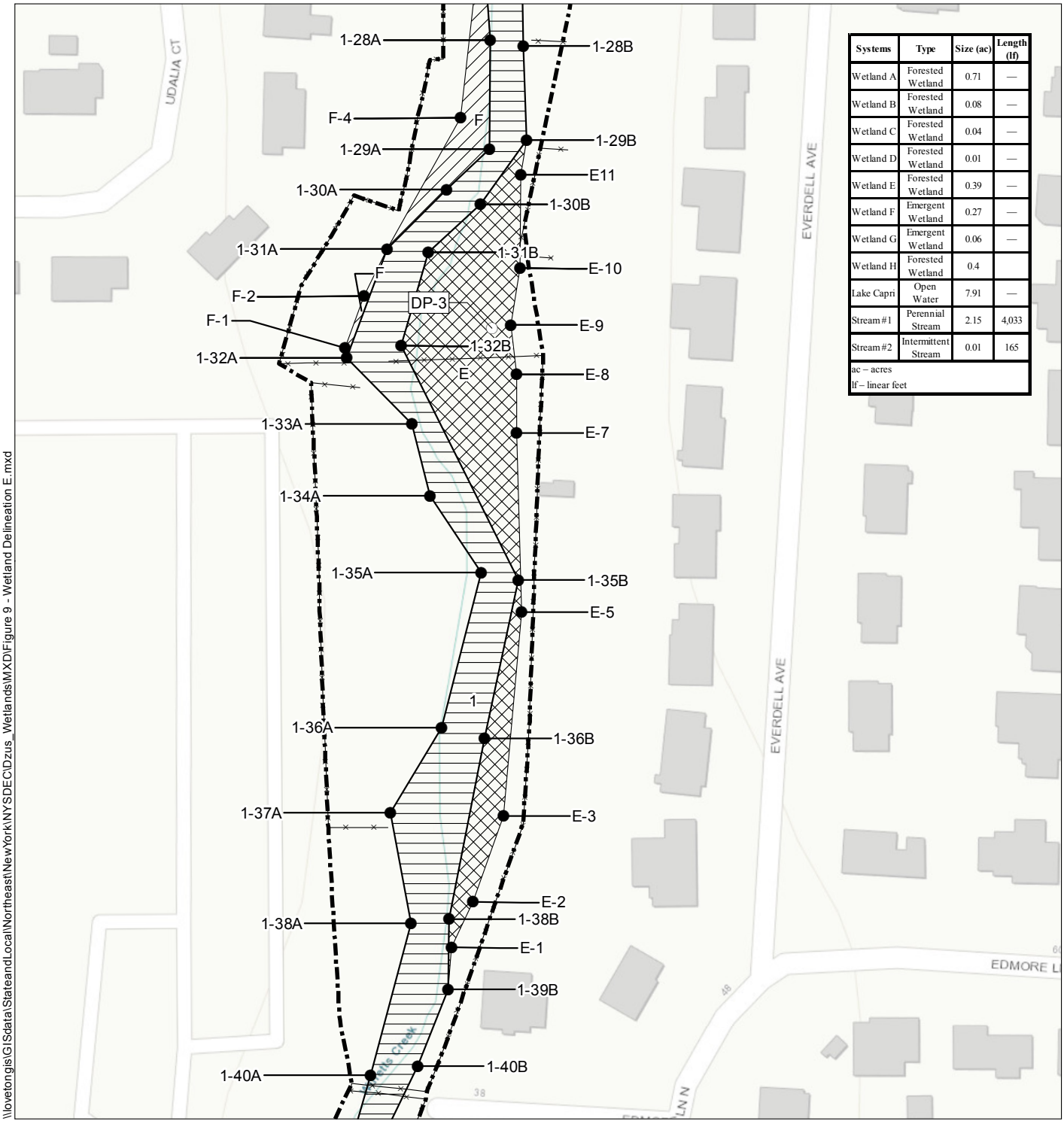
Legend

- Data Point
- Wetland Flag
- Area of Review (AOR)
- Emergent Wetland
- Forested Wetland
- Stream Channel (OHWM)
- Fence Line

Figure 8
Wetland F
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 12/3/2018
Source: ESRI 2016
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

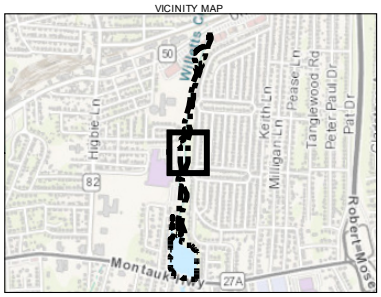


Systems	Type	Size (ac)	Length (lf)
Wetland A	Forested Wetland	0.71	—
Wetland B	Forested Wetland	0.08	—
Wetland C	Forested Wetland	0.04	—
Wetland D	Forested Wetland	0.01	—
Wetland E	Forested Wetland	0.39	—
Wetland F	Emergent Wetland	0.27	—
Wetland G	Emergent Wetland	0.06	—
Wetland H	Forested Wetland	0.4	
Lake Capri	Open Water	7.91	—
Stream #1	Perennial Stream	2.15	4,033
Stream #2	Intermittent Stream	0.01	165

ac – acres
lf – linear feet

\\lovetongis\GIS\data\StateandLocal\Northeast\NewYork\NYSDEC\Dzus_Wetlands\MXD\Figure 9 - Wetland Delineation E.mxd

VICINITY MAP



0 25 50 100
Feet

1 inch = 100 feet

N

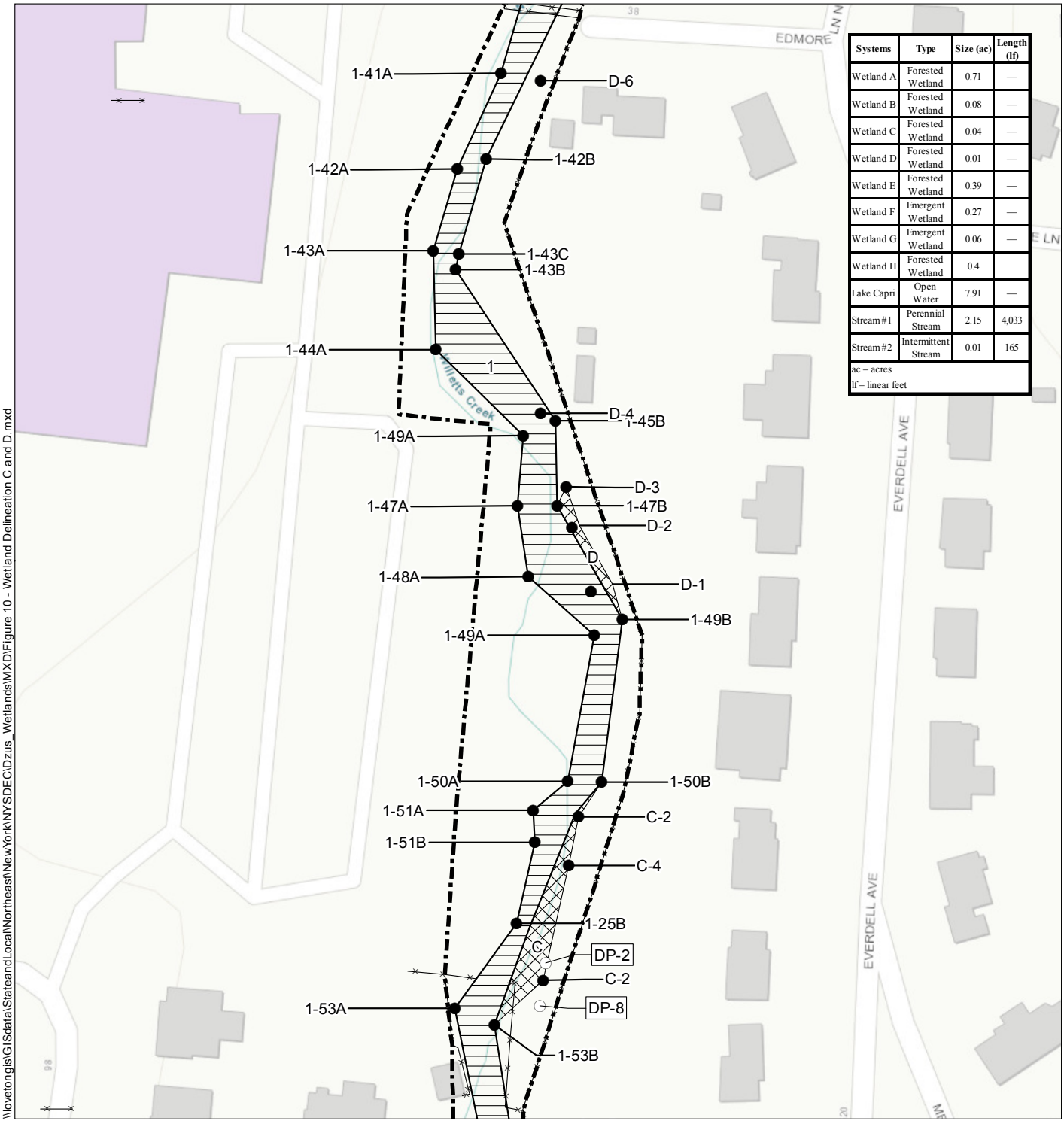
Legend

- Data Point
- Wetland Flag
- Area of Review (AOR)
- Emergent Wetland
- Forested Wetland
- Stream Channel (OHWM)
- Fence Line

Figure 9
Wetland E
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 12/3/2018
Source: ESRI 2016
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

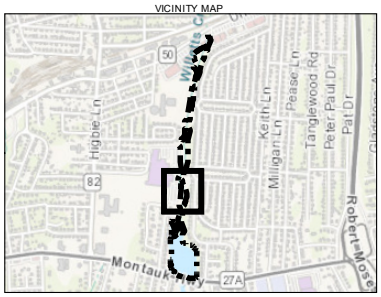
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation



Systems	Type	Size (ac)	Length (lf)
Wetland A	Forested Wetland	0.71	—
Wetland B	Forested Wetland	0.08	—
Wetland C	Forested Wetland	0.04	—
Wetland D	Forested Wetland	0.01	—
Wetland E	Forested Wetland	0.39	—
Wetland F	Emergent Wetland	0.27	—
Wetland G	Emergent Wetland	0.06	—
Wetland H	Forested Wetland	0.4	
Lake Capri	Open Water	7.91	—
Stream #1	Perennial Stream	2.15	4,033
Stream #2	Intermittent Stream	0.01	165

ac – acres
lf – linear feet

\\lovetongis\GIS\data\StateandLocal\Northeast\NewYork\NYSDEC\Dzus_Wetlands\MXD\Figure 10 - Wetland Delineation C and D.mxd



0 25 50 100
Feet

1 inch = 100 feet

N

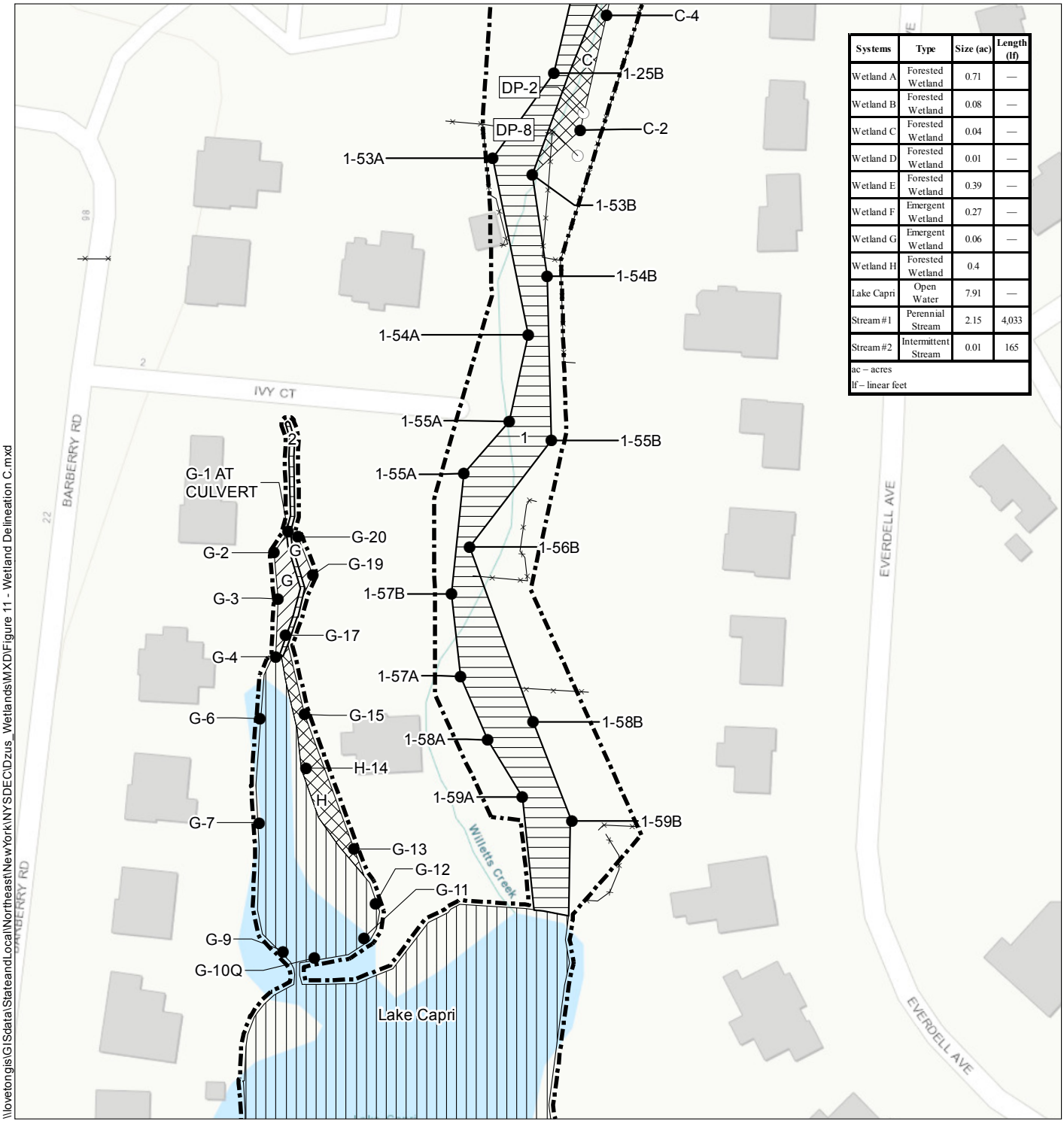
Legend

- Data Point
- Wetland Flag
- Area of Review (AOR)
- Forested Wetland
- Stream Channel (OHWM)
- Fence Line

Figure 10
Wetland C and D
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 12/3/2018
Source: ESRI 2016
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

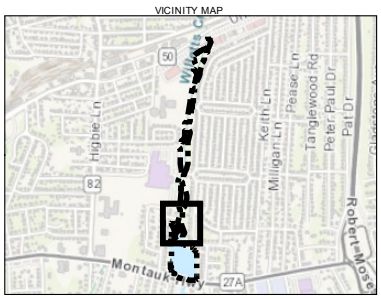
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation



Systems	Type	Size (ac)	Length (lf)
Wetland A	Forested Wetland	0.71	—
Wetland B	Forested Wetland	0.08	—
Wetland C	Forested Wetland	0.04	—
Wetland D	Forested Wetland	0.01	—
Wetland E	Forested Wetland	0.39	—
Wetland F	Emergent Wetland	0.27	—
Wetland G	Emergent Wetland	0.06	—
Wetland H	Forested Wetland	0.4	
Lake Capri	Open Water	7.91	—
Stream #1	Perennial Stream	2.15	4,033
Stream #2	Intermittent Stream	0.01	165

ac – acres
lf – linear feet

\\lovetongis\GIS data\StateandLocal\Northeast\NewYork\NYSDEC\Dzus_Wetlands\MXD\Figure 11 - Wetland Delineation C.mxd



0 25 50 100
Feet

1 inch = 100 feet

N

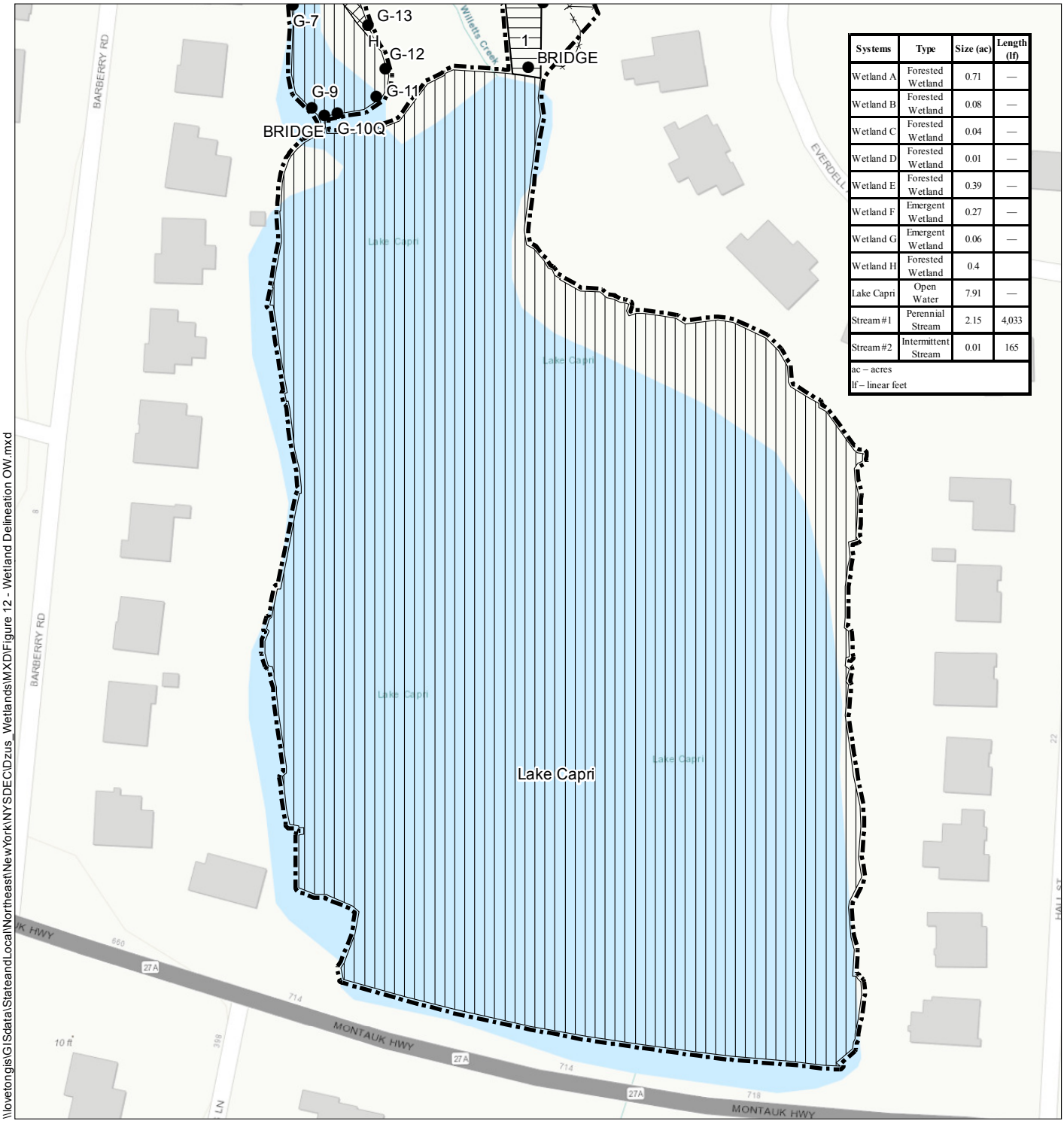
Legend

- Data Point
- Wetland Flag
- Area of Review (AOR)
- Emergent Wetland
- Forested Wetland
- Stream Channel (OHWM)
- Open Water Wetland
- Fence Line

Figure 11
Wetland G
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 12/3/2018
Source: ESRI 2016
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

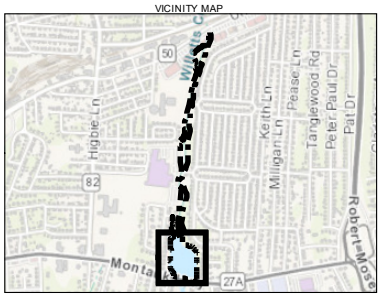


Systems	Type	Size (ac)	Length (lf)
Wetland A	Forested Wetland	0.71	—
Wetland B	Forested Wetland	0.08	—
Wetland C	Forested Wetland	0.04	—
Wetland D	Forested Wetland	0.01	—
Wetland E	Forested Wetland	0.39	—
Wetland F	Emergent Wetland	0.27	—
Wetland G	Emergent Wetland	0.06	—
Wetland H	Forested Wetland	0.4	
Lake Capri	Open Water	7.91	—
Stream #1	Perennial Stream	2.15	4,033
Stream #2	Intermittent Stream	0.01	165

ac – acres
lf – linear feet

\\lovetongis\GIS\data\StateandLocal\Northeast\NewYork\NYSDEC\Dzus_Wetlands\MXD\Figure 12 - Wetland Delineation OW.mxd

VICINITY MAP



0 50 100 200
Feet

1 inch = 125 feet

N

Legend

- Wetland Flag
- Area of Review (AOR)
- Forested Wetland
- Stream Channel (OHWM)
- Open Water Wetland
- Fence Line

Figure 12
Wetland G and Openwater
Work Assignment Number D007624-33
Operable Unit 3 – Willetts Creek Area
and Operable Unit 4 - lake Capri (152033)
West Islip, New York

Map Date: 12/3/2018
Source: ESRI 2016
Projection: NAD 1983 State Plane New York
Long Island FIPS 3104 Feet

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Appendix A

WETLAND DATA SHEETS

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WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Project/Site: Dzus wetlands | City/County: Suffolk County | Sampling Date: 3/12/18

Applicant/Owner: DEC | State: NY | Sampling Point: DP-1W

Investigator(s): TMK | Section, Township, Range: West Islip

Landform (hillslope, terrace, etc.): hillslope | Local Relief (concave, convex, none): convex

Slope %: <5% | Latitude: 40° 42' 11" N | Longitude: 73° 18' 01" W | Datum: NAD83

Subregion (LRR or MLRA) | Soil Map Unit Name: RhB | NWI Classification: PFO

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

Are Vegetation ☐, Soil ☐ , or hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐ , or hydrology ☐ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS - Attach site map shoing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Hydric Soil Present? Yes ☑ No ☐

Wetland Hydrology Present? Yes ☑ No ☐

Is the Sampled Area within a Wetland? Yes ☑ No ☐

If yes, optional Wetland Site ID: **Wetland A**

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

Data point collected in Wetland A and represenative of Wetlands A, B, D, and E - Forested wetlands with little phragmites

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is 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 (minimum of 2)

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

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): **1-2 inches**

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? Yes ☑ No ☐ Depth (inches): **surface**

(includes capillary fringe)

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1 ***Liquidambar styraciflua***	**20**	**Yes**	**FAC**
2 ***Acer rubrum***	**20**	**Yes**	**FAC**
3			
4			
5			
6			
7			
	40 = Total cover		
	20 = 50%	8 = 20%	
Sapling/Shrub Stratum (Plot size: 10 ft)			
1 ***Clethra alnifolia***	**35**	**Yes**	**FACW**
2 ***Rosa multiflora***	**10**	**No**	**FACU**
3 ***Vaccinium corymbosus***	**15**	**Yes**	**FACW**
4			
5			
6			
7			
	60 = Total Cover		
	30 = 50%	12 = 20%	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (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)

Prevalance Index = B/A =

Vegetation (continued)

Sampling Point: DP-1W

Herb Stratum (Plot size: 10 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2 ***Symplocarpus foetidus***	**30**	**Yes**	**OBL**
3			
4			
5			
6			
7			
8			
	30 = Total Cover		
	15 = 50%	6 = 20%	

Woody-vine Stratum (Plot size: 10ft)			
1			
2			
3			
4			
5			
6			
7			
	= Total Cover		
	= 50%	= 20%	

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance test is >50%
- ☐ Prevalence Index is ≤3.01
- ☐ Morphological Adaptations1 (Provide Supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation1 (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Woody Vines: All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ☑ **No** ☐

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

SOIL

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	**10YR 3/1**	**100**	--	--	--	--	**silt loam**	
2-12	**10YR 4/2**	**90**	**10YR 5/6**	**10**	**C**	**PL**	**silt loam**	
12-18	**10YR 4/2**	**80**	**10YR 4/4**	**20**	**C**	**M**	**clay loam**	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prarie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TX6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: --

Depth (inches): --

Hydric Soil Present? **Yes** ☑ **No** ☐

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Project/Site: Dzus wetlands | City/County: Suffolk County | Sampling Date: 3/12/18

Applicant/Owner: DEC | State: NY | Sampling Point: DP-2W

Investigator(s): TMK | Section, Township, Range: West Islip

Landform (hillslope, terrace, etc.): hillslope | Local Relief (concave, convex, none): convex

Slope %: <5% | Latitude: 40° 42' 11" N | Longitude: 73° 18' 01" W | Datum: NAD83

Subregion (LRR or MLRA) | Soil Map Unit Name: RhB | NWI Classification: PFO

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

Are Vegetation ☐, Soil ☐ , or hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐ , or hydrology ☐ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS - Attach site map shoing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☑ No ☐ **Is the Sampled Area within a Wetland? Yes ☑ No ☐**

Hydric Soil Present? Yes ☑ No ☐

Wetland Hydrology Present? Yes ☑ No ☐ If yes, optional Wetland Site ID: **Wetland C**

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

phragmites dominated forested wetland

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is 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 (minimum of 2)

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

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? Yes ☑ No ☐ Depth (inches): **2 inches**

(includes capillary fringe)

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1 ***Liquidambar styraciflua***	**10**	**Yes**	**FAC**
2 ***Acer rubrum***	**10**	**Yes**	**FAC**
3			
4			
5			
6			
7			
	20 = Total cover		
	10 = 50%	4 = 20%	
Sapling/Shrub Stratum (Plot size: 10 ft)			
1 ***Clethra alnifolia***	**10**	**Yes**	**FACW**
2 ***Rosa multiflora***	**15**	**Yes**	**FACU**
3			
4			
5			
6			
7			
	25 = Total Cover		
	12.5 = 50%	5 = 20%	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0 (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)

Prevalance Index = B/A =

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Vegetation (continued)

Sampling Point: DP-2W

Herb Stratum (Plot size: 10 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2 ***Phragmites australis***	**70**	**Yes**	**FACW**
3			
4			
5			
6			
7			
8			
	70	= Total Cover	
	35	= 50% 14	= 20%

Woody-vine Stratum (Plot size: 10ft)			
1			
2			
3			
4			
5			
6			
7			
		= Total Cover	
		= 50%	= 20%

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance test is >50%
- ☐ Prevalence Index is ≤3.01
- ☐ Morphological Adaptations1 (Provide Supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation1 (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Woody Vines: All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ☑ **No** ☐

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

SOIL

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	**10YR 2/1**	**100**	--	--	--	--	**silt loam**	
2-8	**10YR 4/2**	**90**	**10YR 5/6**	**10**	**C**	**PL**	**silt loam**	
8-16	**10YR 5/2**	**90**	**10YR 5/6**	**10**	**C**	**PL**	**silt loam**	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prarie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TX6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: --

Depth (inches): --

Hydric Soil Present? **Yes** ☑ **No** ☐

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Project/Site: Dzus wetlands | City/County: Suffolk County | Sampling Date: 3/12/18

Applicant/Owner: DEC | State: NY | Sampling Point: DP-3W

Investigator(s): TMK | Section, Township, Range: West Islip

Landform (hillslope, terrace, etc.): hillslope | Local Relief (concave, convex, none): convex

Slope %: <5% | Latitude: 40° 42' 11" N | Longitude: 73° 18' 01" W | Datum: NAD83

Subregion (LRR or MLRA) | Soil Map Unit Name: RhB | NWI Classification: PEM

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

Are Vegetation ☐, Soil ☐ , or hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐ , or hydrology ☐ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS - Attach site map shoing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☑ No ☐ **Is the Sampled Area within a Wetland? Yes ☑ No ☐**

Hydric Soil Present? Yes ☑ No ☐

Wetland Hydrology Present? Yes ☑ No ☐ If yes, optional Wetland Site ID: **Wetland F**

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

phragmites dominated emergent wetland

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is 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 (minimum of 2)

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

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? Yes ☐ No ☑ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2			
3			
4			
5			
6			
7			
	= Total cover		
	= 50%	= 20%	
Sapling/Shrub Stratum (Plot size: 10 ft)			
1			
2			
3			
4			
5			
6			
7			
	= Total Cover		
	= 50%	= 20%	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (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)

Prevalance Index = B/A =

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Vegetation (continued)

Sampling Point: DP-3W

Herb Stratum (Plot size: 10 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2 ***Phragmites australis***	**80**	**Yes**	**FACW**
3			
4			
5			
6			
7			
8			
	80 = Total Cover		
	40 = 50%	16 = 20%	
Woody-vine Stratum (Plot size: 10ft)			
1 ***Lonicera japonica***	**10**	**Yes**	**FAC**
2			
3			
4			
5			
6			
7			
	10 = Total Cover		
	5 = 50%	**2** = 20%	

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance test is >50%
- ☐ Prevalence Index is ≤3.01
- ☐ Morphological Adaptations1 (Provide Supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation1 (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Woody Vines: All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ☑ **No** ☐

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

SOIL

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	**10YR 2/1**	**100**	--	--	--	--	**alluvium**	sediment deposition from stream
6-10	**10YR 4/2**	**95**	**10YR 4/4**	**5**	**C**	**PL**	**silt loam**	
10-18	**10YR 4/1**	**100**					**silt loam**	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prarie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TX6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: --

Depth (inches): --

Hydric Soil Present? **Yes** ☑ **No** ☐

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Project/Site: Dzus wetlands | City/County: Suffolk County | Sampling Date: 3/12/18

Applicant/Owner: DEC | State: NY | Sampling Point: DP-4W

Investigator(s): TMK | Section, Township, Range: West Islip

Landform (hillslope, terrace, etc.): hillslope | Local Relief (concave, convex, none): convex

Slope %: <5% | Latitude: 40° 42' 11" N | Longitude: 73° 18' 01" W | Datum: NAD83

Subregion (LRR or MLRA) | Soil Map Unit Name: RhB | NWI Classification: PEM

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

Are Vegetation ☐, Soil ☐ , or hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐ , or hydrology ☐ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS - Attach site map shoing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Hydric Soil Present? Yes ☑ No ☐

Wetland Hydrology Present? Yes ☑ No ☐

Is the Sampled Area within a Wetland? Yes ☑ No ☐

If yes, optional Wetland Site ID: **Wetland G**

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

phragmites dominated emergent wetland

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is 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 (minimum of 2)

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

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): **1**

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? Yes ☑ No ☐ Depth (inches): **surface**

(includes capillary fringe)

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2			
3			
4			
5			
6			
7			
	= Total cover		
	= 50%	= 20%	
Sapling/Shrub Stratum (Plot size: 10 ft)			
1			
2			
3			
4			
5			
6			
7			
	= Total Cover		
	= 50%	= 20%	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (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)

Prevalance Index = B/A =

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Vegetation (continued)

Sampling Point: DP-4W

Herb Stratum (Plot size: 10 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1 ***Bohemeria cylindrica***	**10**	**No**	**OBL**
2 ***Phragmites australis***	**2**	**No**	**FACW**
3 ***Impatiens capensis***	**60**	**Yes**	**OBL**
4 ***Onoclea sensibilis***	**20**	**Yes**	**OBL**
5			
6			
7			
8			
	92	= Total Cover	
	46	= 50% 18	= 20%
Woody-vine Stratum (Plot size: 10ft)			
1 ***Lonicera japonica***	**5**	**Yes**	**FAC**
2			
3			
4			
5			
6			
7			
	10	= Total Cover	
	5	= 50% **2**	= 20%

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance test is >50%
- ☐ Prevalence Index is ≤3.01
- ☐ Morphological Adaptations1 (Provide Supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation1 (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Woody Vines: All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ☑ **No** ☐

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

SOIL

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	**10YR 2/1**	**100**	--	--	--	--	**silt loam**	
2-12	**10YR 5/1**	**95**	**10YR 4/6**	**5**	**C**	**PL**	**silt loam**	
12-16	**10YR 4/1**	**100**					**silt loam**	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prarie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TX6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: --

Depth (inches): --

Hydric Soil Present? **Yes** ☑ **No** ☐

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Project/Site: Dzus wetlands | City/County: Suffolk County | Sampling Date: 3/12/18

Applicant/Owner: DEC | State: NY | Sampling Point: DP-5

Investigator(s): TMK | Section, Township, Range: West Islip

Landform (hillslope, terrace, etc.): hillslope | Local Relief (concave, convex, none): convex

Slope %: <5% | Latitude: 40° 42' 11" N | Longitude: 73° 18' 01" W | Datum: NAD83

Subregion (LRR or MLRA): | Soil Map Unit Name: RhB | NWI Classification: --

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

Are Vegetation ☐, Soil ☐ , or hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐ , or hydrology ☐ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS - Attach site map shoing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Hydric Soil Present? Yes ☐ No ☑

Wetland Hydrology Present? Yes ☐ No ☑

Is the Sampled Area within a Wetland? Yes ☐ No ☑

If yes, optional Wetland Site ID:

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

upland slope along WUS1 across from Wetland A

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is 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 (minimum of 2)

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

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? Yes ☐ No ☑ Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:
No hydrology indicators observed

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1 ***Nyssa Sylvatica***	**15**	**Yes**	**FAC**
2 ***Carya ovata***	**15**	**Yes**	**FACU**
3			
4			
5			
6			
7			
	30 = Total cover		
	15 = 50%	6 = 20%	
Sapling/Shrub Stratum (Plot size: 10 ft)			
1			
2 ***Rosa multiflora***	**15**	**Yes**	**FACU**
3			
4			
5			
6			
7			
	15 = Total Cover		
	7.5 = 50%	3 = 20%	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0 (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)

Prevalance Index = B/A =

Vegetation (continued)

Sampling Point: DP-5

Herb Stratum (Plot size: 10 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2			
3			
4			
5			
6			
7			
8			
	= Total Cover		
	= 50%	= 20%	

Woody-vine Stratum (Plot size: 10ft)	Absolute % Cover	Dominant Species?	Indicator Status
1 ***Hedera helix***	**60**	**Yes**	**FACU**
2 ***Lonicera japonica***	**10**	**No**	**FAC**
3			
4			
5			
6			
7			
	70 = Total Cover		
	35 = 50%	**14** = 20%	

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance test is >50%
- ☐ Prevalence Index is ≤3.01
- ☐ Morphological Adaptations1 (Provide Supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation1 (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Woody Vines: All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	**10YR 2/1**	**100**	--	--	--	--	**silt loam**	
4-16	**10YR 3/2**	**100**	--	--	--	--	**silt loam**	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prarie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TX6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: --

Depth (inches): --

Hydric Soil Present? Yes ☐ No ☑

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Project/Site: Dzus wetlands | City/County: Suffolk County | Sampling Date: 3/12/18

Applicant/Owner: DEC | State: NY | Sampling Point: DP-6

Investigator(s): TMK | Section, Township, Range: West Islip

Landform (hillslope, terrace, etc.): hillslope | Local Relief (concave, convex, none): convex

Slope %: <5% | Latitude: 40° 42' 11" N | Longitude: 73° 18' 01" W | Datum: NAD83

Subregion (LRR or MLRA): | Soil Map Unit Name: RhB | NWI Classification: --

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

Are Vegetation ☐, Soil ☐ , or hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐ , or hydrology ☐ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS - Attach site map shoing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Hydric Soil Present? Yes ☐ No ☑

Wetland Hydrology Present? Yes ☐ No ☑

Is the Sampled Area within a Wetland? Yes ☐ No ☑

If yes, optional Wetland Site ID:

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

upland slope between Wetland A and B

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is 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 (minimum of 2)

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

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? Yes ☐ No ☑ Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:
No hydrology indicators observed

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1 ***Nyssa Sylvatica***	**15**	**Yes**	**FAC**
2 ***Carya ovata***	**10**	**Yes**	**FACU**
3 ***Acer rubrum***	**15**	**Yes**	**FAC**
4 ***Quercus alba***	**5**	**No**	**FACU**
5			
6			
7			
	45 = Total cover		
	22.5 = 50%	9 = 20%	
Sapling/Shrub Stratum (Plot size: 10 ft)			
1			
2 ***Rosa multiflora***	**15**	**Yes**	**FACU**
3			
4			
5			
6			
7			
	15 = Total Cover		
	7.5 = 50%	3 = 20%	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (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)

Prevalance Index = B/A =

Vegetation (continued)

Sampling Point: DP-6

Herb Stratum (Plot size: 10 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2			
3			
4			
5			
6			
7			
8			
	= Total Cover		
	= 50%	= 20%	
Woody-vine Stratum (Plot size: 10ft)			
1 ***Hedera helix***	**5**	**Yes**	**FACU**
2 ***Lonicera japonica***	**20**	**Yes**	**FAC**
3			
4			
5			
6			
7			
	25 = Total Cover		
	12.5 = 50%	**5** = 20%	

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance test is >50%
- ☐ Prevalence Index is ≤3.01
- ☐ Morphological Adaptations1 (Provide Supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation1 (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Woody Vines: All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	**10YR 2/2**	**100**	--	--	--	--	**silt loam**	
6-10	**10YR 3/3**	**100**	--	--	--	--	**silt loam**	
10-16	**10YR 4/3**	**80**	**10YR 2/2**				**silt loam**	**crushed fill and rocky material - no redox**

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prarie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TX6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: --

Depth (inches): --

Hydric Soil Present? Yes ☐ No ☑

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Project/Site: Dzus wetlands | City/County: Suffolk County | Sampling Date: 3/12/18

Applicant/Owner: DEC | State: NY | Sampling Point: DP-7

Investigator(s): TMK | Section, Township, Range: West Islip

Landform (hillslope, terrace, etc.): hillslope | Local Relief (concave, convex, none): convex

Slope %: 5% | Latitude: 40° 42' 11" N | Longitude: 73° 18' 01" W | Datum: NAD83

Subregion (LRR or MLRA): | Soil Map Unit Name: RhB | NWI Classification: --

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

Are Vegetation ☐, Soil ☐ , or hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐ , or hydrology ☐ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS - Attach site map shoing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Hydric Soil Present? Yes ☐ No ☑

Wetland Hydrology Present? Yes ☐ No ☑

Is the Sampled Area within a Wetland? Yes ☐ No ☑

If yes, optional Wetland Site ID:

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

upland slope along WUS1 upslope of Wetland F

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is 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 (minimum of 2)

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

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? Yes ☐ No ☑ Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:
No primary hydrology indicators observed

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2			
3			
4			
5			
6			
7			
	= Total cover		
	= 50%	= 20%	
Sapling/Shrub Stratum (Plot size: 10 ft)			
1			
2			
3			
4			
5			
6			
7			
	= Total Cover		
	= 50%	= 20%	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (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)

Prevalance Index = B/A =

Vegetation (continued)

Sampling Point: DP-7

Herb Stratum (Plot size: 10 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2 ***Phragmites australis***	**80**	**yes**	**FACW**
3			
4			
5			
6			
7			
8			
	80	= Total Cover	
	40	= 50% 16	= 20%
Woody-vine Stratum (Plot size: 10ft)			
1			
2 ***Lonicera japonica***	**15**	**Yes**	**FAC**
3			
4			
5			
6			
7			
	15	= Total Cover	
	7.5	= 50% **3**	= 20%

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance test is >50%
- ☐ Prevalence Index is ≤3.01
- ☐ Morphological Adaptations1 (Provide Supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation1 (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Woody Vines: All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ☑ **No** ☐

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

SOIL

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	**10YR 2/1**	**100**	--	--	--	--	**silt loam**	
4-10	**10YR 3/3**	**100**	--	--	--	--	**silt loam**	
10-16	**10YR 4/3**	**100**	--	--	--	--	**silt loam**	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prarie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TX6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: --

Depth (inches): --

Hydric Soil Present? **Yes** ☐ **No** ☑

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region - Version 2.0

Project/Site: Dzus wetlands | City/County: Suffolk County | Sampling Date: 3/12/18

Applicant/Owner: DEC | State: NY | Sampling Point: DP-8

Investigator(s): TMK | Section, Township, Range: West Islip

Landform (hillslope, terrace, etc.): hillslope | Local Relief (concave, convex, none): convex

Slope %: <5% | Latitude: 40° 42' 11" N | Longitude: 73° 18' 01" W | Datum: NAD83

Subregion (LRR or MLRA) | Soil Map Unit Name: RhB | NWI Classification: --

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

Are Vegetation ☐, Soil ☐ , or hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐ , or hydrology ☐ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS - Attach site map shoing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Hydric Soil Present? Yes ☐ No ☑

Wetland Hydrology Present? Yes ☐ No ☑

Is the Sampled Area within a Wetland? Yes ☐ No ☑

If yes, optional Wetland Site ID:

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

located between Wetland C and residential yard

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is 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 (minimum of 2)

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

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? Yes ☐ No ☑ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

No hydrology indicators observed

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1 ***Acer rubrum***	**5**	**Yes**	**FAC**
2 ***Carya ovata***	**5**	**Yes**	**FACU**
3 ***Nyssa sylvatica***	**10**	**Yes**	**FAC**
4			
5			
6			
7			
	20 = Total cover		
	10 = 50%	4 = 20%	
Sapling/Shrub Stratum (Plot size: 10 ft)			
1			
2 ***Rosa multiflora***	**10**	**Yes**	**FACU**
3 ***Clethra alnifolia***	**5**	**Yes**	**FACW**
4 ***Acer rubrum***	**5**	**Yes**	**FAC**
5			
6			
7			
	20 = Total Cover		
	10 = 50%	4 = 20%	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 44.4 (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)

Prevalance Index = B/A =

Vegetation (continued)

Sampling Point: DP-8

Herb Stratum (Plot size: 10 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1 ***Festuca spp.***	**20**	**Yes**	**UPL**
2 ***Trifolium repense***	**10**	**Yes**	**FACU**
3 ***Trifolium pratense***	**10**	**Yes**	**FACU**
4			
5			
6			
7			
8			
	40	= Total Cover	
	20	= 50% **8**	= 20%

Woody-vine Stratum (Plot size: 10ft)			
1			
2			
3			
4			
5			
6			
7			
		= Total Cover	
		= 50%	= 20%

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance test is >50%
- ☐ Prevalence Index is ≤3.01
- ☐ Morphological Adaptations1 (Provide Supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation1 (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Woody Vines: All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	**10YR 3/2**	**100**	--	--	--	--	**silt loam**	
3-14	**10YR 4/3**	**100**	--	--	--	--	**silt loam**	
14-18	**10YR 4/2**	**100**	--	--	--	--	**silt loam**	

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

Hydric Soil Indicators:

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- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: --

Depth (inches): --

Hydric Soil Present? Yes ☐ No ☑

Appendix B

PHOTO LOG

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On-site Photographs
Dzus Wetland Delineation Report
Photos Taken March 11-12 and September 4, 2018

Photograph 1: Overview of Waters of the U.S. 1

Photograph 2: View of Wetland A from the right bank of Waters of the U.S. 1

Photograph 3: Overview of Wetland B.

Photograph 4: Overview of Wetland D along Waters of the U.S. 1.

On-site Photographs
Dzus Wetland Delineation Report
Photos Taken March 11-12 and September 4, 2018

Photograph 5: Overview of Wetland F along Waters of the U.S. 1.

Photograph 6: Connection of Wetland C to Waters of the U.S. 1.

Photograph 7: Pedestrian bridge crossing over Waters of the U.S. 1.

Photograph 8: Overview of Lake Capri.

On-site Photographs
Dzus Wetland Delineation Report
Photos Taken March 11-12 and September 4, 2018

Photograph 9: Mowed and maintained lawn typically observed along the banks of Lake Capri.

Photograph 10: Overview of Waters of the U.S. 2.

Photograph 11: Overview of Wetland G.

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