Lockport-Batavia Line #112

Rebuild Project

EM&CP Update

Replacement Appendix G
(SWPPP)

(Revised January 2026; Replaces Version Filed June 2025)

Part 3 of 5

Culvert Analysis Report
Culvert 30

Analysis Component			
Storm Event	Design	Discharge	72.60 cfs

Peak Discharge Method: User-Specified			
Design Discharge	72.60 cfs	Check Discharge	87.20 cfs

Tailwater Conditions: Constant Tailwater	
Tailwater Elevation	N/A ft

Name	Description	Discharge	HW Elev.	Velocity
Culvert-1	1-8 x 4 ft Box	72.60 cfs	607.67 ft	6.63 ft/s
Weir	Roadway (Constant Elevation)	0.00 cfs	607.67 ft	N/A
Total	----------	72.60 cfs	607.67 ft	N/A

Culvert Analysis Report
Culvert 30

Component:Culvert-1

Culvert Summary					
Computed Headwater Elevation	607.67	ft	Discharge	72.60	cfs
Inlet Control HW Elev.	607.54	ft	Tailwater Elevation	N/A	ft
Outlet Control HW Elev.	607.67	ft	Control Type	Outlet Control	
Headwater Depth/Height	0.61				

Grades					
Upstream Invert	605.22	ft	Downstream Invert	605.21	ft
Length	50.00	ft	Constructed Slope	0.000200	ft/ft

Hydraulic Profile					
Profile	M2		Depth, Downstream	1.37	ft
Slope Type	Mild		Normal Depth	N/A	ft
Flow Regime	Subcritical		Critical Depth	1.37	ft
Velocity Downstream	6.63	ft/s	Critical Slope	0.003284	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	8.00	ft
Section Size	8 x 4 ft		Rise	4.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	607.67	ft	Upstream Velocity Head	0.44	ft
Ke	0.70		Entrance Loss	0.30	ft

Inlet Control Properties					
Inlet Control HW Elev.	607.54	ft	Flow Control	N/A	
Inlet Type	0° wingwall flares		Area Full	32.0	ft²
K	0.06100		HDS 5 Chart	8	
M	0.75000		HDS 5 Scale	3	
C	0.04230		Equation Form	1	
Y	0.82000				

Culvert Analysis Report
Culvert 30

Component:Weir

Hydraulic Component(s): Roadway (Constant Elevation)					
Discharge	0.00	cfs	Allowable HW Elevation	607.67	ft
Roadway Width	20.00	ft	Overtopping Coefficient	2.50	US
Length	200.00	ft	Crest Elevation	610.22	ft
Headwater Elevation	N/A	ft	Discharge Coefficient (Cr)	2.50	
Submergence Factor (Kt)	1.00				

Sta (ft)	Elev. (ft)
0.00	610.22
200.00	610.22

Culvert Analysis Report
Culvert 35

Analysis Component			
Storm Event	Design	Discharge	15.44 cfs

Peak Discharge Method: User-Specified			
Design Discharge	15.44 cfs	Check Discharge	25.35 cfs

Tailwater Conditions: Constant Tailwater	
Tailwater Elevation	N/A ft

Name	Description	Discharge	HW Elev.	Velocity
Culvert-1	1-8 x 4 ft Box	15.43 cfs	634.15 ft	3.96 ft/s
Weir	Roadway (Constant Elevation)	0.00 cfs	634.15 ft	N/A
Total	----------	15.43 cfs	634.15 ft	N/A

Culvert Analysis Report
Culvert 35

Component:Culvert-1

Culvert Summary					
Computed Headwater Elevation	634.15	ft	Discharge	15.43	cfs
Inlet Control HW Elev.	634.08	ft	Tailwater Elevation	N/A	ft
Outlet Control HW Elev.	634.15	ft	Control Type	Outlet Control	
Headwater Depth/Height	0.22				

Grades					
Upstream Invert	633.27	ft	Downstream Invert	633.12	ft
Length	50.00	ft	Constructed Slope	0.003000	ft/ft

Hydraulic Profile					
Profile	M2		Depth, Downstream	0.49	ft
Slope Type	Mild		Normal Depth	0.52	ft
Flow Regime	Subcritical		Critical Depth	0.49	ft
Velocity Downstream	3.96	ft/s	Critical Slope	0.003648	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	8.00	ft
Section Size	8 x 4 ft		Rise	4.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	634.15	ft	Upstream Velocity Head	0.22	ft
Ke	0.70		Entrance Loss	0.15	ft

Inlet Control Properties					
Inlet Control HW Elev.	634.08	ft	Flow Control	N/A	
Inlet Type	0° wingwall flares		Area Full	32.0	ft²
K	0.06100		HDS 5 Chart	8	
M	0.75000		HDS 5 Scale	3	
C	0.04230		Equation Form	1	
Y	0.82000				

Culvert Analysis Report
Culvert 35

Component:Weir

Hydraulic Component(s): Roadway (Constant Elevation)					
Discharge	0.00	cfs	Allowable HW Elevation	634.15	ft
Roadway Width	20.00	ft	Overtopping Coefficient	2.50	US
Length	200.00	ft	Crest Elevation	638.27	ft
Headwater Elevation	N/A	ft	Discharge Coefficient (Cr)	2.50	
Submergence Factor (Kt)	1.00				

Sta (ft)	Elev. (ft)
0.00	638.27
200.00	638.27

Culvert Designer/Analyzer Report
Culvert-58

Analysis Component			
Storm Event	Check	Discharge	99.00 cfs

Peak Discharge Method: User-Specified			
Design Discharge	70.00 cfs	Check Discharge	99.00 cfs

Tailwater Conditions: Constant Tailwater	
Tailwater Elevation	N/A ft

Name	Description	Discharge	HW Elev.	Velocity
Culvert-1	1-60 inch Circular	98.99 cfs	611.22 ft	10.92 ft/s
Weir	Roadway	0.00 cfs	611.22 ft	N/A
Total	----------	98.99 cfs	611.22 ft	N/A

Culvert Designer/Analyzer Report
Culvert-58

Component:Culvert-1

Culvert Summary					
Computed Headwater Elev	611.22	ft	Discharge	98.99	cfs
Inlet Control HW Elev.	611.04	ft	Tailwater Elevation	N/A	ft
Outlet Control HW Elev.	611.22	ft	Control Type	Entrance Control	
Headwater Depth/Height	0.84				

Grades					
Upstream Invert	607.00	ft	Downstream Invert	606.50	ft
Length	56.03	ft	Constructed Slope	0.008924	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	2.35	ft
Slope Type	Steep		Normal Depth	2.11	ft
Flow Regime	Supercritical		Critical Depth	2.83	ft
Velocity Downstream	10.92	ft/s	Critical Slope	0.003266	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.012	
Section Material	HDPE (Smooth Interior)		Span	5.00	ft
Section Size	60 inch		Rise	5.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	611.22	ft	Upstream Velocity Head	1.16	ft
Ke	0.20		Entrance Loss	0.23	ft

Inlet Control Properties					
Inlet Control HW Elev.	611.04	ft	Flow Control	Unsubmerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	19.6	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Designer/Analyzer Report
Culvert-58

Component:Weir

Hydraulic Component(s): Roadway					
Discharge	0.00	cfs	Allowable HW Elevation	611.22	ft
Roadway Width	0.00	ft	Overtopping Coefficient	3.09	US
Low Point	611.20	ft	Headwater Elevation	N/A	ft
Discharge Coefficient (Cr)	3.09		Submergence Factor (Kt)	1.00	
Tailwater Elevation	-9,999.00	ft			

Sta (ft)	Elev. (ft)
0.00	611.20
10.00	611.30
20.00	611.52
30.00	612.00
40.00	612.53
50.00	613.06
60.00	613.59
70.00	613.99
80.00	614.22
90.00	614.28
100.00	614.17
110.00	613.89
120.00	613.44
130.00	612.83
140.00	612.17
150.00	611.58
160.00	611.43

Appendix R
Wetland/Watercourse Delineation Report

PREPARED FOR:

NIAGARA MOHAWK POWER CORPORATION
(D/B/A NATIONAL GRID)
300 ERIE BOULEVARD, WEST
SYRACUSE, NY 13202

LOCKPORT-BATAVIA #112 REBUILD PROJECT

TOWNS OF LOCKPORT AND ROYALTON, NIAGARA COUNTY, AND
TOWN OF ALABAMA, GENESEE COUNTY,
NEW YORK

WETLAND AND WATERCOURSE DELINEATION REPORT

JANUARY 2020
UPDATED FEBRUARY 2021

PREPARED BY:

180 CHARLOTTE STREET
ROCHESTER, NEW YORK 14607
FISHER ASSOCIATES PROJECT NO. 190176.00

EXECUTIVE SUMMARY

On behalf of Niagara Mohawk Power Corporation (d/b/a National Grid), Fisher Associates' Environmental Scientists conducted field delineations between August 6 and October 2, 2019, June 16, 2020, and November 12 and 13, 2020 to identify potential jurisdictional federal Waters of the U.S. (WOTUS) and potential jurisdictional state waters, including wetlands and watercourses within the Project Study Limits defined to support the Lockport-Batavia #112 Rebuild Project (Project). The original Project Study Limits consisted of a 445.14-acre area. An additional field delineation was performed on June 16, 2020 to look at an additional section of the Lockport-Batavia #112 line between Structure 211 and Structure 213. A second additional field delineation was performed on November 12 and November 13, 2020 to look at additional areas within the proposed reroute location along Lewiston Road, an area between Structure 168 and Structure 169, and an extension of the Project Study Limits at Structure 213. The overall Project Study Limits consist of a 468.42-acre area, which encompasses potential construction and limits of disturbance required for the Project. The Project Study Limits are depicted on the attached Wetland and Watercourse Delineation mapping.

The Project Study Limits are located within an existing right-of-way (ROW) for multiple overhead electrical transmission lines and the area includes commercial, residential, agricultural, and rural residential areas. The Project Study Limits are generally confined to the existing maintained ROW for the Lockport-Batavia #112 overhead transmission line, between Structure 1.3 to Structure 213. In the eastern portion of the Project, the Project Study Limits cross the Tonawanda Wildlife Management Area (WMA) and John White WMA. The Project Study Limits are generally bounded by NYS Route 77 to the north; the Erie Canal to the west; NYS Route 98 to the east; and NYS Route 93 to the south. They are located within the Niagara (HUC 04120104) and Oak Orchard-Twelvemile (HUC 04130001) watersheds. The western and central portion of the Project is drained by multiple unnamed tributaries of Mud Creek which flow south into Mud Creek and eventually into Tonawanda Creek. The Tonawanda WMA is comprised of a series of ditches and streams which flow into impounded wetlands/ waterbodies where water levels are manually facilitated. There are three (3) New York State Department of Environmental Conservation (NYSDEC) mapped streams within Tonawanda WMA that flow into Oak Orchard Creek to the north beyond the Project Study Limits. The outflow from the Tonawanda WMA drains into Tonawanda Creek to the south beyond the Project Study Limits.

The Project Study Limits were delineated based upon the methodology outlined in the *1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (Regional Supplement 2012), and the *1995 New York State Freshwater Wetlands Delineation Manual*. Using these methodologies, preliminary delineation mapping was produced and is included along with the attached investigation description and discussion. Twenty-eight (28) wetlands, totaling 153.59-acres, were delineated within the Project Study Limits. There were twenty-seven (27) PEM wetland components totaling 145.75-acres, four (4) PSS wetland components totaling 4.63-acres, three (3) PFO wetland components totaling 2.65-acres, and one (1) open-water (PUB) system totaling 0.56-acres were delineated within the Project Study Limits. Ten (10) stream reaches, totaling 3,575-linear feet, were delineated within the Project Study Limits. This included the New York State (NYS) Barge Canal (Class C), one (1) unnamed tributary to Tonawanda Creek (Class B), three (3) unnamed tributaries to Mud Creek (Class C), Mud Creek (Class C), and four (4) unmapped tributaries to Mud Creek (Class D) were delineated within the Project Study Limits. Twenty-five (25) ditches, totaling 4,643-linear feet, were delineated within the Project Study Limits.

Based on conditions observed, the USACE will likely invoke jurisdiction over the ten (10) delineated streams due to their perennial and intermittent flow regime, as well as their connection to a US Traditional

Navigable Water. Additionally, delineated Stream 001 is a section of the NYS Barge Canal (Erie Canal) system and is listed as a navigable waterway under Section 10 of the Rivers and Harbors Act of 1899. The USACE will also likely take jurisdiction over eighteen (18) of the twenty-eight (28) delineated wetlands because they are adjacent wetlands to other WOTUS. The USACE is anticipated to take jurisdiction over Ditch 010 because it flows through a jurisdictional adjacent wetland.

It is anticipated that the New York State Department of Environmental Conservation (NYSDEC) will invoke jurisdiction over Wetland 005 (PEM) (associated with NYSDEC Wetland LP-23), Wetland 016 (PEM & PSS) (associated with NYSDEC Wetland GA-22), Wetlands 017 (PEM & PFO) and 018 (PEM) (associated with NYSDEC Wetland GA-21), Wetland 020 (PEM) (associated with NYSDEC Wetland GA-6), Wetland 023 (PEM & PSS) (associated with NYSDEC Wetland AK-2, AK-3, and AK-4), and Wetland 027 (PEM & PFO) (associated with NYSDEC Wetland MD-1) under Article 24: Freshwater wetlands of the Environmental Conservation Law (ECL). Also, the NYSDEC may invoke jurisdiction over delineated Wetland 022 (PEM) because it is located within the John White WMA which has been owned and managed by the NYSDEC since 1945. It is expected that the NYSDEC will not invoke jurisdiction over the remaining delineated wetland systems throughout the Project Study Limits as they are not within close proximity (i.e., less than 50 meters) of mapped NYSDEC wetlands and their regulated 100-foot adjacent areas.

Additionally, it is anticipated that the NYSDEC will invoke jurisdiction over delineated Stream 002, an Unnamed Tributary to Tonawanda Creek, under Article 15: Protected Waters Program of the ECL, as it is a mapped NYSDEC Class B stream. It is also possible that the NYSDEC will invoke jurisdictional over delineated Stream 009 due to its location within the Tonawanda WMA which is managed by the NYSDEC as well as Stream 001, the Erie Canal, as it operated by the NYS Canal Corporation. It is expected that the NYSDEC will not invoke jurisdiction over the remaining seven (7) stream reaches identified within the Project Study Limits as they are recognized as either Class C or D stream reaches. It is expected that the NYSDEC will not invoke jurisdiction over the delineated ditches since NYSDEC typically does not regulate ditches.

WETLAND AND WATERCOURSE DELINEATION REPORT
LOCKPORT-BATAVIA #112 REBUILD PROJECT

TABLE OF CONTENTS

WETLAND AND WATERCOURSE DELINEATION REPORT
LOCKPORT-BATAVIA #112 REBUILD PROJECT

TABLE OF CONTENTS

WETLAND AND WATERCOURSE DELINEATION REPORT
LOCKPORT-BATAVIA #112 REBUILD PROJECT

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

PROJECT INFORMATION SHEET

General

Project Name:	Lockport-Batavia #112 Rebuild Project
State:	New York
County:	Niagara and Genesee County
Town:	Towns of Lockport, Royalton, and Alabama
Latitude:	43.139915 North
Longitude:	-78.54395 West
Project Study Limit Size:	468.42-acres
HUC Code:	04120104 (Niagara Watershed) & 04130001 (Oak Orchard-Twelvemile)
Waterbodies (TNW):	NYS Barge Canal, unnamed tributaries to Tonawanda Creek, unnamed tributaries to Mud Creek; and associated palustrine emergent (PEM), palustrine scrub-shrub (PSS) and palustrine forested (PFO) wetlands

Corresponding Information

USGS Quad Map:	Akron, Gasport, Lockport, Medina, Oakfield
USDA Soils Map:	Niagara and Genesee County

Owner/Applicant

Name:	Niagara Mohawk Power Corporation (d/b/a National Grid)
Address:	300 Erie Boulevard, West Syracuse, NY 13202
Contact:	Mary Bitka: (716) 831-7206

Consultant

Name:	Fisher Associates
Address:	180 Charlotte Street Rochester, NY 14607
Contact:	Sean Milne: (585) 334-1310 ext. 216

1.0 INTRODUCTION

On behalf of Niagara Mohawk Power Corporation (d/b/a National Grid), Fisher Associates' Environmental Scientists conducted field delineations between August 6 and October 2, 2019, June 16, 2020, an November 12 and 13, 2020 to identify potential jurisdictional federal Waters of the U.S. (WOTUS) and potential jurisdictional state waters, including wetlands and watercourses within the Project Study Limits defined to support the Lockport-Batavia #112 Rebuild Project (Project). The original Project Study Limits consisted of a 445.14-acre area. An additional field delineation was performed on June 16, 2020 to look at an additional section of the Lockport-Batavia #112 line between Structure 211 and Structure 213. A second additional field delineation was performed on November 12 and November 13, 2020 to look at additional areas within the proposed reroute location along Lewiston Road, an area between Structure 168 and Structure 169, and an extension of the Project Study Limits at Structure 213. The overall Project Study Limits consist of a 468.42-acre area, which encompasses potential construction and limits of disturbance required for the Project. The Project Study Limits are depicted on the attached Wetland and Watercourse Delineation mapping.

2.0 SITE INFORMATION

2.1 Site Location

The Project Study Limits are located in the Towns of Lockport and Royalton in Niagara County, and the Town of Alabama in Genesee County, New York (see Figure 1: Project Vicinity and Index Map). The Project Study Limits are generally confined to the existing maintained right-of-way (ROW) for the Lockport-Batavia #112 overhead transmission line, between Structure 1.3 to Structure 213. They are located within the Niagara (HUC 04120104) and Oak Orchard-Twelvemile (HUC 04130001) watersheds. The western and central portion of the Project is drained by multiple unnamed tributaries of Mud Creek which flow south into Mud Creek and eventually into Tonawanda Creek. A majority of the eastern portion of the Project is located within the Tonawanda Wildlife Management Area (WMA) and the John White WMA. The Project is in the Ontario-Erie Plain and Finger Lakes Region of the Lake States Fruit, Truck, and Dairy Region.

2.2 Site Description

The Project Study Limits are located within an existing right-of-way (ROW) for multiple overhead electrical transmission lines and the area includes commercial, residential, agricultural, and rural residential areas. In the eastern portion of the Project, the Project Study Limits cross the Tonawanda Wildlife Management Area (WMA) and John White WMA. The Tonawanda WMA is comprised of a series of ditches and streams which flow into impounded wetlands/ waterbodies where water levels are manually facilitated. There are three (3) NYSDEC mapped streams within the Tonawanda WMA that flow into Oak Orchard Creek to the north beyond the Project Study Limits. The outflow from the Tonawanda WMA drains into Tonawanda Creek to the south beyond the Project Study Limits. The Project Study Limits are generally bounded by NYS Route 77 to the north; the Erie Canal to the west; NYS Route 98 to the east; and NYS Route 93 to the south (see *Figure 2: Wetland and Watercourse Delineation Map*).

3.0 REGULATORY INFORMATION

Both New York State and the U.S. federal government have rules and regulations that must be followed when it comes to defining wetlands and watercourses and which features are determined to be regulated.

3.1 Regulatory Definitions

A "tributary" is defined by the USACE as a water that contributes flow, either directly or through another water (including an impoundment) to a water that is characterized by the presence of the physical indicators of a bed and bank and an OHWM. Watercourse flow regimes of either perennial, intermittent or ephemeral were noted for each channel based on the U.S. Environmental Protect Agency's (EPA) stream definitions (U.S. EPA, 2013) as noted below.

- Perennial (year-round) – Those streams that typically have flowing water in them year-round. Most of the water comes from smaller upstream waters or groundwater while runoff from rainfall or other precipitation is supplemental.
- Intermittent (seasonal) – Those streams that flow during certain time of the year when smaller upstream waters are flowing and when groundwater provides enough water for stream flow. Runoff from rainfall or other precipitation supplements the flow of a seasonal stream. During dry periods, seasonal streams may not have flowing surface water.
- Ephemeral (precipitation dependent) – Those streams which only flow after precipitation. Runoff from rainfall is the primary source of water for these streams.

Additionally, these definitions are based on the understanding of conditions in a "typical year". Which is the normal periodic range of precipitation and other climactic variables for a waterbody. "Typical year" is a term that ensures agencies are considering normal (i.e. typical) hydrologic flows or surface water connections that occur under normal conditions rather that making jurisdictional determinations based on conditions that are abnormally wet or dry.

Under the Navigable Waters Protection Rule (effective June 22, 2020), the definition of a "ditch" is a constructed or excavated channel used to convey water.

3.2 Federal Agency Regulations

In accordance with the Navigable Waters Protection Rule (effective June 22, 2020), and the Clean Water Act, WOTUS that are regulated and jurisdictional by the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) are outlined in the below four (4) categories.

- Territorial seas and traditional navigable waters (TNWs) –
    - According to the USACE (33 CFR Part 329), a traditional navigable water are "those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce."
    - This also includes large rivers and lakes, such as the Mississippi River, the Great Lakes, Chesapeake Bay, and the Erie Canal.
- Tributaries –
    - Tributaries that are jurisdictional are perennial and intermittent rivers and streams that contribute surface flow to traditional navigable waters in a typical year.
    - They must be naturally occurring surface water channels that flow more often than just after a single precipitation event.
    - Tributaries can connect to a traditional navigable water or territorial seas in a typical year either directly or through other WOTUS, through channelized non-jurisdictional surface waters, through artificial features (including culverts), or through natural features (including boulder fields).
    - Ditches are considered tributaries only if:

        - They satisfy the flow conditions of a perennial or intermittent tributary definition;
        - And either:
            - were constructed in or relocate a tributary; or
            - were constructed in an adjacent wetland and contribute perennial or intermittent flow to a traditional navigable water.
        - Fully upland ditches, regardless of flow, do not fall within the scope of the Clean Water Act.
- Lakes, ponds and impoundments of jurisdictional waters –
    - Lakes, ponds, and impoundments of jurisdictional waters are jurisdictional where they contribute surface water flow to a traditional navigable water or territorial seas in a typical year either directly or through other WOTUS, through channelized non-jurisdictional surface waters, through artificial features (culverts), or through natural features (boulder fields).
    - These are also jurisdictional where they are flooded by a WOTUS in a typical year, such as certain oxbow lakes.
    - Artificial lakes and ponds, including water storage reservoirs and farm irrigation, stock watering and log cleaning ponds, constructed or excavated in upland or non-jurisdictional waters are excluded from federal jurisdiction.
- Adjacent wetlands –
    - Wetlands that typically touch other WOTUS.
    - Wetlands separated by a WOTUS by only a natural berm, bank or dune.
    - Wetlands inundated by flooding from a WOTUS in a typical year.
    - Wetlands that are physically separated from a jurisdictional water by an artificial dike, barrier or similar structure as long as the structure allows for direct hydrologic surface connection.
    - Adjacent wetland is jurisdictional in its entirety when a road or similar artificial structure divides the wetlands, so long as the structure allows for a direct hydrologic surface connection through or over it in a typical year.

3.3 New York State Department of Environmental Conservation Regulations

The NYSDEC has separate regulations when it comes to determining jurisdiction of wetlands and watercourses within the states borders.

3.3.1 Freshwater Wetlands

Under Article 24: Freshwater Wetlands Act of the NYS Environmental Conservation Law (ECL) (6NYCRR Part 663, Part 664 and Part 665), the NYSDEC is charged with preventing despoliation and destruction of freshwater wetlands. NYSDEC defines freshwater wetlands as lands and submerged lands, commonly called marshes, swamps, sloughs, bogs, and flats, supporting aquatic or semi-aquatic vegetation. NYSDEC has classified regulated wetlands according to their respective functions, values and benefits into Class I, II, III or IV. Class I wetlands are the most valuable. Except in the Adirondack Park, a freshwater wetland would be regulated by the NYSDEC if it is at least 12.4-acres or an already mapped NYSDEC wetland (see Section 5.1.1). Additionally, upland areas within a 100-feet of a NYSDEC jurisdictional wetland are also regulated.

3.3.2 State Protected Waterways

Under Article 15: Protection of Waters Program of the NYS ECL (6NYCRR Part 608), the NYSDEC is charged with preserving and protecting the states lakes, rivers, streams and ponds. All waters of the state are provided a class and standard designation based on existing or expected best usage of each water or waterway segment. These are:

- Classification AA or A is assigned to waters used as a source of drinking water.
- Classification B indicates a best usage for swimming and other contact recreation, but not for drinking water.
- Classification C is for waters supporting fisheries and suitable for non-contact activities.
- The lowest Classification and standard is D.

Waters with Classifications A, B, and C may also have a standard designation of (T), indicating that it may support trout population, or (TS) indicating that it may support trout spawning. Small waterbodies (ponds and lakes) with a surface are of less than 10-acres, located within the stream course are considered part of the stream and subject to regulation. Streams and small waterbodies with a Classification of AA, A or B, or with a Classification C with a standard designation of (T) or (TS) are collectively referred to as "protected streams" and are subject to the stream protection provisions of the Protection of Waters regulation.

4.0 METHODOLOGY

4.1 Preliminary Offsite Investigation/ Data Review

A review of publicly available resources was performed prior to the onsite field investigation in order to determine if there is the potential for jurisdictional areas, and if present, the extent of these areas located within the Project Study Limits. These mapping resources are represented on *Figure 2: Wetland and Watercourse Delineation Map* and generally include but are not limited to:

- New York State Freshwater Wetlands Mapping (NYSFW);
- New York State Protection of Waters Regulatory Program Streams Mapping (NYSS);
- U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI) Database;
- U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soils Database; and
- United States Geographical Survey (USGS) Mapping.

4.2 Wetland Field Investigations

Wetland boundaries were field delineated according to the routine onsite methodology described in the *1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual*, the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (2012 Regional Supplement), and the *1995 New York State Freshwater Wetlands Delineation Manual*.

Wetlands were identified based on the presence of hydric soils; a vegetative community dominated by hydrophytes, and inundated or saturated conditions, and/or indicators of hydrologic patterns. Wetlands within the Project Study Limits were classified according to the USFWS *Classification of Wetland and Deepwater Habitats of the United States*. Wetland classifications were based on vegetation type and dominance: palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), and palustrine open-water (POW). A project-specific identification number was given to the delineated wetland. Wetland delineation data relative to vegetation, hydrology, soils and general observations was documented on routine wetland data forms consistent with the guidance of the 2012 Regional Supplement.

The wetland boundaries were recorded with a sub-meter accuracy global positioning system (GPS) unit to further clarify their locations. Wetland field data points were established within close proximity to wetland boundaries in order to document upland/ dryland and wetland conditions existing along wetland boundaries.

Mapping depicting the location of the delineated wetlands within the Project Study Limits are provided as an attachment (see *Figure 2: Wetland and Watercourse Delineation Map*). Photographs were taken at the field data points to document conditions along the delineation boundary. Supporting wetland determination data forms are provided in *Appendix A.* Representative site photographs are provided in *Appendix D.*

4.3 Watercourse Field Investigations

Watercourses such as stream channels, tributaries, ditches and linear conveyance features were identified based on the recognition of field indicators of bed, bank, and an ordinary high-water mark (OHWM) coupled with an evaluation of flow type (perennial, intermittent or ephemeral) and connectivity.

If observed, Fisher Associates' environmental scientists delineated and flagged watercourse boundaries in the field and the flagged locations were recorded with a sub-meter accuracy GPS unit to further clarify their locations. Top of Bank widths as well as OHWM widths were recorded throughout the length of the watercourse. Mapping depicting the location of the delineated watercourses, including streams and ditches, identified within the Project Study Limits are provided as an appendix (see *Figure 2: Wetland and Watercourse Delineation Map*).

Any ditches observed within the Project Study Limits were flagged in the field and mapped. Jurisdiction of diches were determined during post-processing of field data based on their connectivity to other WOTUS. Observed watercourse characteristics were recorded on supporting stream and ditch data forms and are provided in *Appendix B and C,* respectively. Representative site photographs are provided in *Appendix D.*

5.0 DELINEATION FINDINGS

5.1 Preliminary Offsite Investigation/ Data Review Findings

5.1.1 NYS Freshwater Wetland Mapping

The NYSFW maps were developed by the NYSDEC pursuant to Article 24: Freshwater Wetlands of the ECL. These maps depict the approximate boundaries of freshwater wetlands regulated by the NYSDEC. In most instances, the State-mapped boundaries are based on aerial photographs and soil survey interpretation and, therefore, require site-specific field verification. Freshwater wetland mapping information identified for the Project Study Limits was obtained from online Geographic Information System (GIS) mapping resources made available by the NYSDEC (NYSDEC, 2021). Based on reviewed mapping information, eight (8) NYSDEC Wetlands or their mapped 100-foot upland adjacent areas were mapped within the Project Study Limits. These consist of NYSDEC Wetlands LP-23 (Class 2), GA-22 (Class 3), GA-21 (Class 3), GA-6 (Class 2), MD-1 (Class 1), AK-2 (Class 2), AK-3 (Class 2), and AK-4 (Class 2).

5.1.2 NYS Streams Mapping

The NYSS maps were developed by the NYSDEC pursuant to Article 15: Protection of Waters Program of the ECL. These maps depict the approximate locations of streams mapped by NYSDEC and identify their respective state water quality classification and standard designations based on existing or expected best usage of each water segment. These stream layers are available through the NYSDEC Environmental Resource Mapper (ERM) and the NYS Clearinghouse. In most instances, the mapped stream locations are based on aerial photographs and topographic map interpretation and, therefore, require site-specific field verification. Stream mapping information identified for the Project Study Limits was obtained from online GIS mapping resources made available by the NYSDEC (NYSDEC, 2021). Based on reviewed mapping information publicly available through the ERM, eleven (11) NYSS are mapped within the Project Study Limits. NYS Barge Canal (Class C), an unnamed tributary to Tonawanda Creek (Class B), an unnamed

tributary to Tonawanda Creek (Class C), three (3) unnamed tributaries to Mud Creek (Class C), Mud Creek (Class C), and three (3) unnamed tributaries to Oak Orchard Creek (Class C) are mapped within the Project Study Limits.

5.1.3 National Wetlands Inventory Mapping

NWI mapping information for the Project Study Limits was obtained from online GIS mapping resources made available by the USFWS (USFWS, 2021). A review of this information was completed which indicated that seventy-nine (79) mapped NWI wetlands are mapped within the Project Study Limits. However, it is understood that this mapping is provided as a reference and is not necessarily indicative of the presence or absence of wetlands in an area. Below is a list of the Cowardin Classifications of the NWI wetlands that are mapped within the Project Study Limits.

Cowardin Classification Code Descriptions for NWIs within the Project Study Limits	
Classification Code	**Description**
L1UBHh	Lacustrine (L), Limnetic (1), Unconsolidated Bottom (UB), Permanently Flooded (H), Diked/Impounded (h)
L1UBHx	Lacustrine (L), Limnetic (1), Unconsolidated Bottom (UB), Permanently Flooded (H), Excavated (x)
PEM1/SS1B	Palustrine (P), Emergent (EM), Persistent (1)/ Scrub-Shrub (SS), Broad-Leaved Deciduous (1), Seasonally Saturated (B)
PEM1/UBFh	Palustrine (P), Emergent (EM), Persistent (1), Unconsolidated Bottom (UB), Semi Permanently Flooded (F), Diked/Impounded (h)
PEM1B	Palustrine (P), Emergent (EM), Persistent (1), Seasonally Saturated (B)
PEM1E	Palustrine (P), Emergent (EM), Persistent (1), Seasonally Flooded/Saturated (E)
PEM1Eh	Palustrine (P), Emergent (EM), Persistent (1), Seasonally Flooded/Saturated (E), Diked/Impounded (h)
PEM1Fh	Palustrine(P), Emergent (EM), Persistent (1), Semi Permanently Flooded (F), Diked/Impounded (h)
PEM1K	Palustrine (P), Emergent (EM), Persistent (1), Artificially Flooded (K)
PFO1/SS1E	Palustrine(P), Forested (FO), Broad-Leaved Deciduous (1)/ Scrub-Shrub (SS), Broad Leaved Deciduous (1), Seasonally Flooded/Saturated (E)
PFO1A	Palustrine (P), Forested (FO), Broad-Leaved Deciduous (1), Temporary Flooded (A)
PFO1B	Palustrine (P), Forested (FO), Broad- Leaved Deciduous, Seasonally Saturated (B)
PFO1Bd	Palustrine (P), Forested (FO), Broad- Leaved Deciduous, Seasonally Saturated (B), Partially Drained/Ditched (d)
PFO1E	Palustrine (P), Forested (FO), Broad-Leaved Deciduous (1), Seasonally Flooded/Saturated (E)
PFO1Eh	Palustrine (P), Forested (FO), Broad-Leaved Deciduous (1), Seasonally Flooded/Saturated (E), Diked/Impounded (h)
PSS1/EM1E	Palustrine (P), Scrub-Shrub (SS), Broad-Leaved Deciduous (1)/ Emergent (EM), Persistent (1), Seasonally Flooded/Saturated (E)
PUB/EM1Fh	Palustrine (P), Unconsolidated Bottom (UB), Emergent (EM), Persistent (1), Semi-Permanently Flooded (F), Diked/Impounded (h)
PUBFx	Palustrine (P), Unconsolidated Bottom, Semi Permanently Flooded (F), Excavated (x)
PUBHh	Palustrine (P), Unconsolidated Bottom (UB), Permanently Flooded (H), Diked/Impounded (h)

Cowardin Classification Code Descriptions for NWIs within the Project Study Limits	
Classification Code	**Description**
R2UBHx	Riverine (R), Lower Perennial (2), Unconsolidated Bottom (UB), Permanently Flooded (H), Excavated (x)
R4SBA	Riverine (R), Intermittant (4), Streambed (SB), Temporary Flooded
R4SBC	Riverine (R), Intermittent (4), Streambed (SB), Seasonally Flooded (C)
R4SBCx	Riverine (R), Intermittent (4), Streambed (SB), Seasonally Flooded (C), Excavated (x)

5.1.4 Soils Mapping

Soil types identified for the Project Study Limits were obtained from online GIS mapping resources made available by the NRCS (USDA-NRCS, 2021). A review of this information was completed to evaluate the soil types within the Project Study Limits to determine the possible presence of hydric soils.

Soil types of predominantly hydric soils were identified within the Project Study Limits and are listed below. Percent hydric ratings are determined by NRCS according to the percentage of map unit components for a soil that meet NRCS' hydric soils definition. The mapped soils at each wetland location, including instances where there may be more than one (1) soil map unit identified at a given wetland location, are described in *Table 1: Wetland Delineation Summary*. Mapped soils present within the Project Study Limits are depicted on *Figure 2: Wetland and Watercourse Delineation Map*.

List of NRCS Soil Types within the Project Study Limits		
Map Unit Symbol	**Map Unit Name**	**Percent Hydric**
ApA	Appleton silt loam, 0 to 3 percent slopes	4
ArB	Arkport very fine sandy loam, 0 to 6 percent slopes	0
AsA	Arkport fine sandy loam, gravelly substratum, 0 to 2 percent slopes	0
Ca	Canandaigua silt loam	86
CaA	Canandaigua silt loam, 0 to 2 percent slopes	95
Cb	Canandaigua silty clay loam	92
CbA	Canandiagua mucky silt loam, 0 to 2 percent slopes	95
CeB	Cazenovia silt loam, 3 to 8 percent slopes	0
ClA	Churchville silt loam, 0 to 2 percent slopes	8
ClB	Churchville silt loam, 2 to 6 percent slopes	4
CnB	Collamer silt loam, 2 to 6 percent slopes	4
Cu	Cut and fill land	5
DuB	Dunkirk silt loam, 2 to 6 percent slopes	0
ElB	Elnora loamy fine sand, 2 to 6 percent slopes	0
Fo	Fonda mucky silt loam	96
FpA	Fredon gravelly loam, 0 to 3 percent slopes	10
GnB	Galen very fine sandy loam, 2 to 6 percent slopes	0
HlA	Hilton silt loam, 0 to 3 percent slopes	0
HlB	Hilton silt loam, 3 to 8 percent slopes	0
HmA	Hilton and Cayuga soils, 0 to 3 percent slopes, bedrock substratum	0

List of NRCS Soil Types within the Project Study Limits		
Map Unit Symbol	**Map Unit Name**	**Percent Hydric**
HoB	Howard gravelly loam, 3 to 8 percent slopes	0
HsB	Hudson silt loam, 2 to 6 percent slopes	0
La	Lakemont silty clay loam, 0 to 3 percent slopes	95
Lc	Lakemont silty clay loam, 0 to 3 percent slopes	95
Ld	Lamson very fine sandy loam	92
Lg	Lamson fine sandy loam, gravelly substratum	92
LmB	Lima silt loam, 3 to 8 percent slopes	1
Ma	Madalin silt loam, 0 to 3 percent slopes	93
Md	Madalin silt loam, loamy subsoil variant	82
Mf	Massena fine sandy loam	57
MnA	Minoa very fine sandy loam, 0 to 2 percent slopes	5
NaA	Niagara silt loam, 0 to 2 percent slopes	4
NgA	Niagara silt loam, 0 to 2 percent slopes	5
OdA	Odessa silty clay loam, 0 to 3 percent slopes	5
OdB	Odessa silty clay loam, 3 to 8 percent slopes	4
OnB	Ontario loam, 3 to 8 percent slopes	0
OnC	Ontario loam, 8 to 15 percent slopes	0
OvA	Ovid silt loam, 0 to 2 percent slopes	4
OvB	Ovid silt loam, 2 to 6 percent slopes	2
OwA	Ovid silt loam, limestone substratum, 0 to 3 percent slopes	5
Pd	Palms muck	100
PsA	Phelps gravelly loam, 0 to 5 percent slopes	0
PsB	Phelps gravelly loam, 3 to 8 percent slopes	0
RbA	Rhinebeck silt loam, 0 to 2 percent slopes	8
RoA	Rock land, nearly level	0
RsA	Romulus silt loam, 0 to 3 percent slopes	85
SeB	Schoharie silt loam, 1 to 6 percent slopes	0
SmB	Scio silt loam, 2 to 8 percent slopes	0
W	Water	0
Wy	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	90

5.2 Wetland Field Investigation Findings

5.2.1 Wetland Area Summary

The onsite delineation verified the presence of wetlands and confirmed the presence of hydric soils depicted on the NRCS soils mapping. Twenty-eight (28) wetlands, totaling 153.59-acres, were delineated within the Project Study Limits. There were twenty-seven (27) PEM wetland components totaling 145.75-acres, four (4) PSS wetland components totaling 4.63-acres, three (3) PFO wetland components totaling 2.65-acres, and one (1) open-water (PUB) system totaling 0.56-acres were delineated within the Project Study Limits. Of the delineated wetlands Wetland 005 (PEM) is associated with NYSDEC Wetland LP-23, Wetland 016 (PEM & PSS) is associated with NYSDEC Wetland GA-22, Wetlands 017 (PEM & PFO) and 018 (PEM)

are associated with NYSDEC Wetland GA-21, and Wetland 020 (PEM) is associated with NYSDEC Wetland GA-6.

Additionally Wetlands 023 (PEM, PSS, and PFO) (associated with NYSDEC Wetland AK-2, AK-3, and AK-4) and Wetland 027 (PEM & PFO) (associated with NYSDEC Wetland MD-1) were delineated within the Tonawanda WMA. However, the ROW for the existing utility line is primarily located on an upland berm running through the center of the WMA with wetlands on either side of the berm. Also, Wetland 022 (PEM) was delineated within the southeastern portion of the John White WMA. A summary of the wetlands identified, the location (latitude/longitude), presumed jurisdiction and total wetland area delineated within the Project Study Limits is provided in Table 1: Wetland Delineation Summary. The location and size of wetlands delineated onsite are shown on Figure 2: Wetland and Watercourse Delineation Map.

5.2.2 Wetland Vegetation

The criterion for wetland vegetation is a dominance of hydrophytic species. A species is considered hydrophytic per USACE (1987 and 2012) if it is classified either as obligate (OBL), facultative wet (FACW), or facultative (FAC) in *The National Wetland Plant List, version 3.4 (USACE, 2018)*. A dominance of hydrophytes requires that more than 50% of the vegetative species in an area are classified as hydrophytic.

The delineated wetlands consist of PEM, PSS, and PFO wetlands that exist in a ROW with multiple overhead transmission lines running throughout. The vegetation was consistent throughout the Project within the wetland types and saw little variance. The PEM wetlands generally consisted of Phragmites (*Phragmites australis*), Purple Loosestrife (*Lythrum salicaria*), Narrow Leaved Cattail (*Typha angustifolia*), and Boneset (*Euptorium perfoliatum*). The PSS wetlands generally consisted of Gray Dogwood (*Cornus racemosa*), Morrow's Honeysuckle (*Lonicera morrowii*), and Black Willow (*Salix nigra*). The PFO wetland consisted of Silver Maple (*Acer saccharinum*). The wetland determination data forms which provide expanded detail of the wetlands identified within the Project Study Limits can be found in *Appendix A*. Wetland vegetation community types observed at each wetland are summarized in *Table 1: Wetland Delineation Summary*.

5.2.3 Wetland Hydrology

The Project Study Limits were examined for field indicators of wetland hydrology. According to USACE (1987 and 2012), wetland hydrology consists of permanent or periodic inundation, or soil saturation to the surface during the growing season. If these indicators were present within the sample plots, the hydrology criterion was met.

Generally, wetlands identified within the Project Study Limits in the western and central portions of the Project receive hydrologic input from surface water runoff. Specifically, in the eastern portion of the Project the ROW cuts through commercial and residential areas where surface runoff from the adjacent roads and parking lots flow into the low areas of the ROW and pool creating standing water and wetlands. In the central portion the runoff is coming from the surrounding agricultural fields and shared surfaces with farm drainage ditches that cut throughout the ROW. In the eastern portion of the Project the majority of the wetlands were observed within the Tonawanda WMA, where they receive hydrological input from a series of feeder ditches and streams that flow throughout the WMA. Additionally, water is stored in the WMA in a series of diked ponds and are artificially controlled through a series of water control structures. In general, the hydrological indicators observed throughout the Project were Drainage Patterns (B10), Geomorphic Positions (D2), Microtopographic Relief (D4), and FAC-Neutral Test (D5). Hydrologic indicators observed at each delineated wetland were recorded on the wetland determination data forms presented in *Appendix A*.

5.2.4 Wetland Soils

Soil physical characteristics were evaluated during the field delineations by excavating to a depth appropriate to evaluate potential hydric soil indicators below ground surface. Soil color was evaluated using *Munsell Soil Color Charts* (Munsell, 2000). Soils that exhibited hydric soil indicators, such as low chroma colors and/or evidence of reducing conditions met the hydric soil criterion per USACE (1987 and 2012).

Wetland soils observed during the excavations within the Project Study Limits generally consisted of Soil samples within wetland areas were a silty clay loam texture possessing a dark brown (10 YR 3/1) matrix with reddish (7.5 YR 5/8) redox concentrations. This soil profile was common throughout the whole Project. The Redox Dark Surface (F6) and Depleted Matrix were the two (2) hydric soil indicator conditions observed within the soil profiles throughout the Project. Characteristics observed at each data point are summarized in the wetland determination data forms included in *Appendix A.*

5.3 Watercourse Field Investigation Findings

5.3.1 Stream Summary

Ten (10) stream reaches, totaling 3,575-linear feet, were delineated within the Project Study Limits. The NYS State Barge Canal (Stream 001), also known as the Erie Canal, was observed within the far western portion of the Project and is a NYSDEC mapped Class C stream. Stream 001, NYS Barge Canal (Erie Canal), is listed as a navigable waterway under Section 10 of the Rivers and Harbors Act of 1899 and is also managed by the NYS Canal Corporation. Stream 002 is a unnamed minor tributary to Tonawanda Creek and is a NYSDEC mapped Class B stream. Stream 009, an unnamed tributary to Tonawanda Creek, is a NYSDEC mapped Class C stream, and is also located in the Tonawanda WMA. Streams 007 and 008 are Unnamed Tributaries to Mud Creek and are NYSDEC mapped Class C streams. Mud Creek (Stream 010) observed in the central portion of the Project, is a NYSDEC mapped Class C stream. The remaining four (4) streams (Stream 003, 004, 005, and 006) are Class D streams because they are intermittent stream channels and are not previously mapped NYSDEC streams. Additionally, the three (3) NYSDEC mapped unnamed tributaries to Oak Orchard that are shown on the NYSDEC ERM flowing through the Tonowanda WMA were not observed during the field delineation, because channels were not observed. These areas have been constricted by berms creating impounded waters with wetland characteristics now rather than stream channels and have been mapped as wetlands instead.

Generally, the streams observed throughout the Project flow south and eventually flow into Tonawanda Creek which flows into the Niagara River, and the Erie Canal flows west and flows into Lake Erie beyond the Project Study Limits. Thus, since all of the delineated streams either flow into Lake Erie, the Erie Canal or Tonawanda Creek they are considered to be WOTUS.

A summary of the streams identified within the Project Study Limits is provided in *Table 2: Stream Delineation Summary*. The location of streams delineated onsite is shown on *Figure 2: Wetland and Watercourse Delineation Map.*

5.3.2 Ditch Summary

Twenty-five (25) ditches, totaling 4,643-linear feet, were delineated within the Project Study Limits. Of these, six (6) were intermittent and the remaining 19 were ephemeral ditches. The majority of the ditches observed were non-jurisdictional roadside ditches or man-made agricultural ditches draining adjacent agricultural fields. One (1) ditch, Ditch 010, is considered to be a jurisdictional ditch as it flows south and is adjacent to NYSDEC Wetland GA-22 outside the Project Study Limits and has a intermittent flow regime.

A summary of the ditches identified within the Project Study Limits is provided in *Table 3: Ditch Delineation Summary* and on the data forms provided in *Appendix C*. The locations of ditches delineated onsite are shown on *Figure 2: Wetland and Watercourse Delineation Map*.

5.4 Upland/ Dryland Area Summary

During the field investigation of the Project Study Limits, approximately 314.83-acres of upland/ dryland or non-jurisdictional areas were identified. The majority of the identified upland/ dryland areas are partially maintained existing utility ROWs and agricultural fields that extend into the Project Study Limits. Upland/ dryland vegetation generally consisted of a mix of Queen Ann's lace (*Daucus carota*), cutleaf teasel (*Dipsacus laciniatus*), spotted knapweed (*Centaura stoebe*), Canada goldenrod (*Solidago Canadensis*), and perennial rye (*Lolium perenne*). Upland/ dryland soils were predominantly dark brown (10YR 3/2) and were consistent throughout the soil profile down to twenty (20) inches below the ground surface. Generally, no indicators of wetland hydrology were observed within the upland/ dryland areas. The location and size of upland/ dryland areas are depicted on Figure 2: Wetland and Watercourse Delineation Map.

6.0 SUMMARY AND CONCLUSIONS

Fisher Associates conducted wetland and watercourse field delineations associated with the Project between August 6 and October 2, 2019, on June 16, 2020, and November 12 and November 13, 2020. Twenty-eight (28) wetlands, totaling 153.59-acres, were delineated within the Project Study Limits. There were twenty-seven (27) PEM wetland components totaling 145.75-acres, four (4) PSS wetland components totaling 4.63-acres, three (3) PFO wetland components totaling 2.65-acres, and one (1) open-water (PUB) system totaling 0.56-acres were delineated within the Project Study Limits. Ten (10) stream reaches, totaling 3,575-linear feet, were delineated within the Project Study Limits. This included the NYS Barge Canal (Class C), one (1) unnamed tributary to Tonawanda Creek (Class B), three (3) unnamed tributaries to Mud Creek (Class C), Mud Creek (Class C), and four (4) unmapped tributaries to Mud Creek (Class D) were delineated within the Project Study Limits. Twenty-five (25) ditches were observed within the Project Study Limits. Twenty-five (25) ditches, totaling 4,643-linear feet, were delineated within the Project Study Limits.

A summary of the presumed jurisdiction of features identified within the Project Study Limits is provided in their respective tables (*Table 1: Wetland Delineation Summary; Table 2: Stream Delineation Summary; Table 3: Ditch Delineation Summary Table).* Based on conditions observed, the USACE will likely invoke jurisdiction over the ten (10) delineated streams due to their perennial and intermittent flow regime as well as their connection to a Traditional Navigable Water. The USACE will also likely take jurisdiction over eighteen (18) of the twenty-eight (28) delineated wetlands because they are adjacent wetlands as defined by the USACE. Additionally, the USACE is anticipated to take jurisdiction over Ditch 010 due to its intermittent flow and it is flowing through an adjacent wetland. Additionally, delineated Stream 001 is a section of the NYS Barge Canal (Erie Canal) system and is listed as a navigable waterway under Section 10 of the Rivers and Harbors Act of 1899.

It is anticipated that the New York State Department of Environmental Conservation (NYSDEC) will invoke jurisdiction over Wetland 005 (PEM) (associated with NYSDEC Wetland LP-23), Wetland 016 (PEM & PSS) (associated with NYSDEC Wetland GA-22), Wetlands 017 (PEM & PFO) and 018 (PEM) (associated with NYSDEC Wetland GA-21), Wetland 020 (PEM) (associated with NYSDEC Wetland GA-6), Wetland 023 (PEM & PSS) (associated with NYSDEC Wetland AK-2, AK-3, and AK-4), and Wetland 027 (PEM & PFO) (associated with NYSDEC Wetland MD-1) under Article 24: Freshwater wetlands of the Environmental Conservation Law (ECL). Also, the NYSDEC may invoke jurisdiction over delineated Wetland 022 (PEM) because it is located within the John White WMA which has been owned and managed by the NYSDEC since 1945. It is expected that the NYSDEC will not invoke jurisdiction over the remaining

delineated wetland systems throughout the Project Study Limits as they are not within close proximity (i.e., less than 50 meters) of mapped NYSDEC wetlands and their regulated 100-foot adjacent areas.

Additionally, it is anticipated that the NYSDEC will invoke jurisdiction over delineated Stream 002, an Unnamed Tributary to Tonawanda Creek, under Article 15: Protected Waters Program of the ECL, as it is a mapped NYSDEC Class B stream. It is also possible that the NYSDEC will invoke jurisdictional over delineated Stream 009 due to its location within the Tonawanda WMA, which is managed by the NYSDEC as well as Stream 001, the Erie Canal, as it operated by the NYS Canal Corporation. It is expected that the NYSDEC will not invoke jurisdiction over the remaining seven (7) stream reaches identified within the Project Study Limits as they are recognized as either Class C or D stream reaches. It is expected that the NYSDEC will not invoke jurisdiction over the delineated ditches since NYSDEC typically does not regulate ditches.

7.0 STATEMENT OF LIMITATIONS

This investigation was limited to the Project Study Limits defined for this Project and which are depicted on *Figure 1: Project Vicinity and Index Map* and *Figure 2: Wetland and Watercourse Delineation Map*. Fisher Associates' did not examine areas outside of the Project Study Limits, thus no information is provided regarding the presence or absence of regulated or non-regulated wetlands and watercourses outside of the Project Study Limits.

Permission was obtained from the NYSDEC in order to access the Tonawanda and John White WMAs. Heidi Kennedy, Wildlife Biologist from the NYSDEC, was the contact person for the Project and was notified each time access to the WMAs was needed.

The wetland and watercourse field delineation/investigation was conducted between August 6 and October 2, 2019, on June 16, 2020, and November 12 and 13, 2020 by Fisher Associate's environmental scientists. Human-induced or natural changes at the site may occur after this date which may cause changes in the presence and extent of regulated and non-regulated wetlands and watercourses.

8.0 SIGNATURES

This Report was Prepared By:

Fisher Associates, P.E., L.S., L.A., D.P.C.

Nicole Lake, WPIT
Environmental Scientist
585-334-1310 ext. 241
NLake@fisherassoc.com

And Reviewed By:

Fisher Associates, P.E., L.S., L.A., D.P.C.

Sean Milne
Senior Environmental Project Manager
585-334-1310 ext. 216
SMilne@fisherassoc.com

9.0 REFERENCES

Clean Water Act of 1972. (n.d.). 33 U.S.C $1251 (2002).

Cowardin, L. M., Carter, V., Golet, F. C., & LaRoe, E. T. (1979). *Classification of Wetlands and Deepwater Habitats of the United States.* Washington, D.C.: United States Department of the Interior, Fish and Wildlife Service, Office of Biological Services.

Edinger, G. J., Evans, D. J., Gebauer, T. G., Howard, T. G., Hunt, D. M., & Olivero, A. M. (2014). *Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State.* Albany, NY: New York Natural Heritage Program, New York State Department of Environmental Conservation.

Environmental Labratory. (1987). *Corps of Engineers Wetlands Delineation Manual.* Vicksburg, MS: U.S. Army Corps of Engineers: Waterways Experiment Station.

Environmental Labratory. (2012). *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0).* Vicksburg, MS: U.S. Army Corps of Engineers Engineer Research and Development Center.

Munsell Color (Firm). (2010). *Munsell Soil Color Charts : with Genuine Munsell Color Chips.* Grand Rapids, MI: Munsell Color.

New York State. (2021). *NYS GIS Clearinghouse*. Retrieved 2020, from http://gis.ny.gov/

New York State Department of Environmental Conservation (NYSDEC). (1995). *New York State Freshwater Wetlands Delineation Manual.* Albany, NY: NYSDEC Division of Fish, Wildlife, and Marine Resources. Bureau of Habitat.

New York State Department of Environmental Conservation (NYSDEC). (2021). *Environmental Resource Mapper*. Retrieved from https://gisservices.dec.ny.gov/gis/erm/

United States Army Corps of Engineers (USACE). (2018). *National Wetland Plant List, version 3.4.* (U.S. Army Corps of Engineers, Editor, Engineer Research and Development Center, Producer, & Cold Regions Research and Engineering Labratory, Hanover, NH) Retrieved from http://wetland-plants.usace.army.mil/

United States Army Corps of Engineers (USACE) and Environmental Protection Agency (EPA). (2020, April 21). The Navigable Waters Protection Rule: Definition of "Waters of the United States.". *Federal Register, 85*(77), pp. 22250-22341. Retrieved from https://www.epa.gov/sites/production/files/2020-01/documents/navigable_waters_protection_rule_prepbulication.pdf

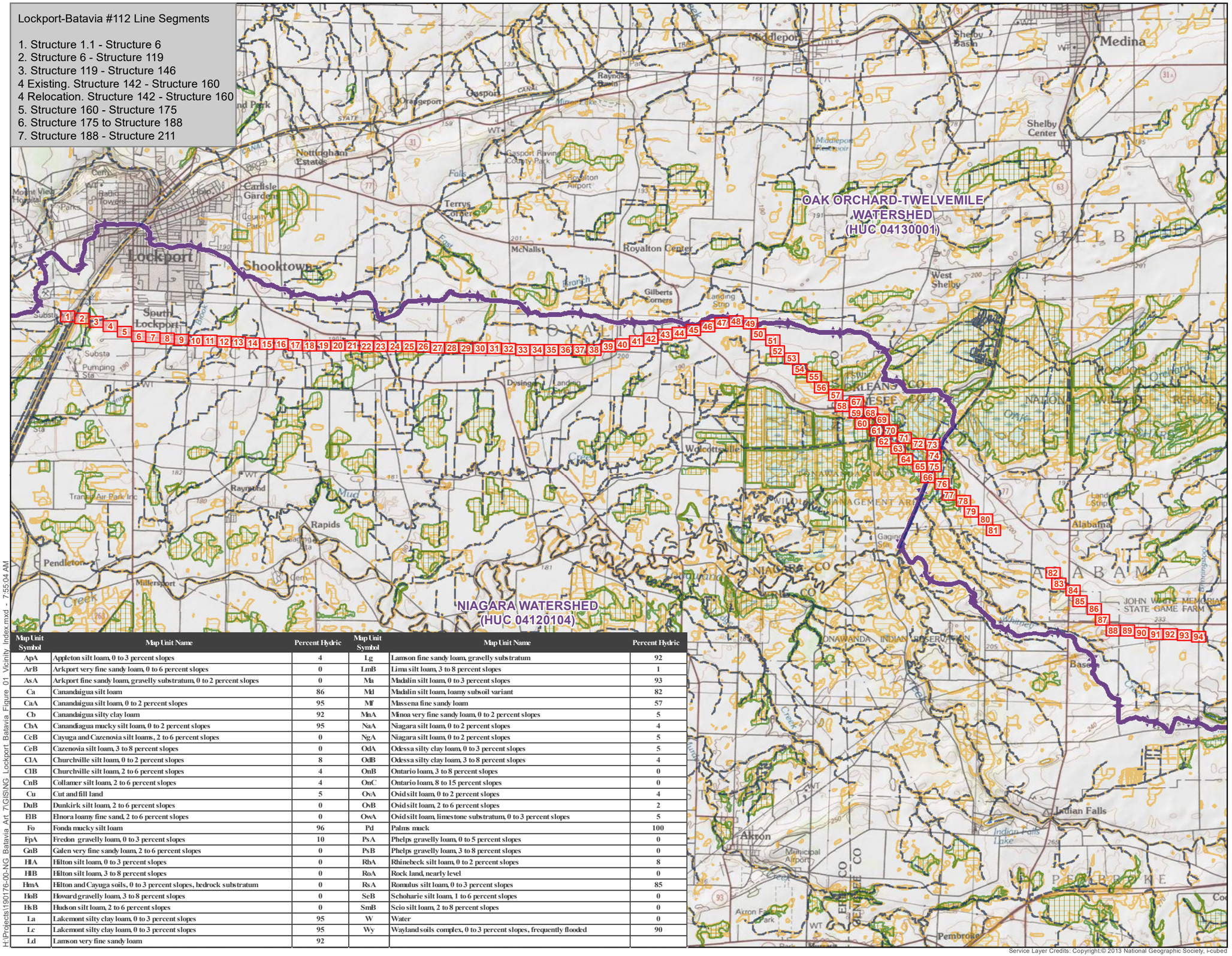
United States Department of Agriculture, Natural Resources Conservation Service. (2021). *Web Soil Survey*.

United States Fish and Wildlife Service (USFWS). (2021). *National Wetland Inventory (NWI)*. Retrieved from https://www.fws.gov/wetlands/data/mapper

FIGURES

Lockport-Batavia #112 Line Segments

1. Structure 1.1 - Structure 6
2. Structure 6 - Structure 119
3. Structure 119 - Structure 146
4 Existing. Structure 142 - Structure 160
4 Relocation. Structure 142 - Structure 160
5. Structure 160 - Structure 175
6. Structure 175 to Structure 188
7. Structure 188 - Structure 211



Map Unit Symbol	Map Unit Name	Percent Hydric	Map Unit Symbol	Map Unit Name	Percent Hydric
ApA	Appleton silt loam, 0 to 3 percent slopes	4	Lg	Lamson fine sandy loam, gravelly substratum	92
ArB	Arkport very fine sandy loam, 0 to 6 percent slopes	0	LmB	Lima silt loam, 3 to 8 percent slopes	1
AsA	Arkport fine sandy loam, gravelly substratum, 0 to 2 percent slopes	0	Ma	Madalin silt loam, 0 to 3 percent slopes	93
Ca	Canandaigua silt loam	86	Md	Madalin silt loam, loamy subsoil variant	82
CaA	Canandaigua silt loam, 0 to 2 percent slopes	95	Mf	Massena fine sandy loam	57
Cb	Canandaigua silty clay loam	92	MnA	Minoa very fine sandy loam, 0 to 2 percent slopes	5
CbA	Canandiagua mucky silt loam, 0 to 2 percent slopes	95	NaA	Niagara silt loam, 0 to 2 percent slopes	4
CcB	Cayuga and Cazenovia silt loams, 2 to 6 percent slopes	0	NgA	Niagara silt loam, 0 to 2 percent slopes	5
CeB	Cazenovia silt loam, 3 to 8 percent slopes	0	OdA	Odessa silty clay loam, 0 to 3 percent slopes	5
ClA	Churchville silt loam, 0 to 2 percent slopes	8	OdB	Odessa silty clay loam, 3 to 8 percent slopes	4
ClB	Churchville silt loam, 2 to 6 percent slopes	4	OnB	Ontario loam, 3 to 8 percent slopes	0
CnB	Collamer silt loam, 2 to 6 percent slopes	4	OnC	Ontario loam, 8 to 15 percent slopes	0
Cu	Cut and fill land	5	OvA	Ovid silt loam, 0 to 2 percent slopes	4
DuB	Dunkirk silt loam, 2 to 6 percent slopes	0	OvB	Ovid silt loam, 2 to 6 percent slopes	2
ElB	Elnora loamy fine sand, 2 to 6 percent slopes	0	OwA	Ovid silt loam, limestone substratum, 0 to 3 percent slopes	5
Fo	Fonda mucky silt loam	96	Pd	Palms muck	100
FpA	Fredon gravelly loam, 0 to 3 percent slopes	10	PsA	Phelps gravelly loam, 0 to 5 percent slopes	0
GnB	Galen very fine sandy loam, 2 to 6 percent slopes	0	PsB	Phelps gravelly loam, 3 to 8 percent slopes	0
HlA	Hilton silt loam, 0 to 3 percent slopes	0	RhA	Rhinebeck silt loam, 0 to 2 percent slopes	8
HlB	Hilton silt loam, 3 to 8 percent slopes	0	RoA	Rock land, nearly level	0
HmA	Hilton and Cayuga soils, 0 to 3 percent slopes, bedrock substratum	0	RsA	Romulus silt loam, 0 to 3 percent slopes	85
HoB	Howard gravelly loam, 3 to 8 percent slopes	0	SeB	Schoharie silt loam, 1 to 6 percent slopes	0
HsB	Hudson silt loam, 2 to 6 percent slopes	0	SmB	Scio silt loam, 2 to 8 percent slopes	0
La	Lakemont silty clay loam, 0 to 3 percent slopes	95	W	Water	0
Lc	Lakemont silty clay loam, 0 to 3 percent slopes	95	Wy	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	90
Ld	Lamson very fine sandy loam	92			

Service Layer Credits: Copyright© 2013 National Geographic Society, i-cubed

FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 1: PROJECT VICINITY AND INDEX MAP

- NYSDEC Streams
- NYSDEC Wetland
- NWI Wetlands
- Watershed Boundary
- Mapsheet

Project USGS Quad(s):

Akron, Gasport, Lockport, Medina, Oakfield

Project Watershed(s):

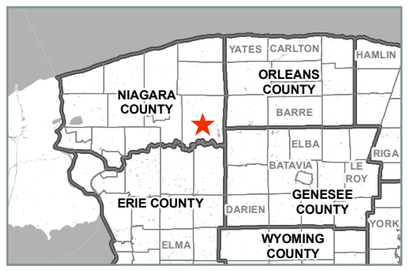
Niagara (HUC 04120104)
Oak Orchard - Twelvemile (HUC 04130001)

Map Revision Date: 1/7/2021 | Map Author: MFA

0 0.75 1.5 Miles

Project Study Limits:
468.42 Acres

Center of Project Study Limits:
43.139915 N, 78.54395 W
North American Datum 1983



Data Sources:

United States Geological Survey 24k Topo Quad Map - usgs.gov
Aerial Photography: ESRI World Imagery - arcgis.com
Wetlands: National Wetland Inventory (5/1/2014) - fws.gov/wetlands/
Soils: NRCS Soil Survey (8/24/2015) - gdg.sc.egov.usda.gov
Watersheds: USGS NHD (3/9/2015) - nhd.usgs.gov
Contours: US Geological Survey (4/14/2008) - http://nationalmap.gov/elevation.html

H:\Projects\190176-00-NG Batavia Art 7\GIS\NG_Lockport_Batavia_Figure_01_Vicinity_Index.mxd - 7:55:04 AM

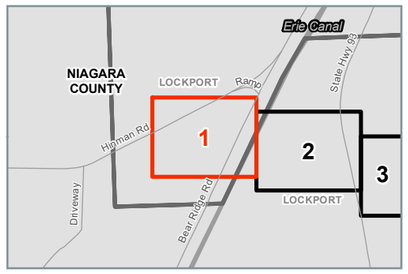
FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



SHEET 1 OF 94

H:\Projects\190176-00-NG Batavia Art 7\GIS\NG_Lockport Batavia Figure 02_Wetland_Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

STREAM 001
PERENNIAL
NYSDEC CLASS: C

WETLAND 004
PEM

WETLAND 005
PEM
NYSDEC FWW LP-23

WETLAND 003
PEM

WETLAND 005
PEM
NYSDEC FWW LP-23

NYSDEC
WETLAND
LP-23

NYS Barge Canal (portion 1) (C.ND)

DP-005
DP-006
DP-007
DP-008
DP-009
DP-010

FO

STATE HWY 93

SHEET 1

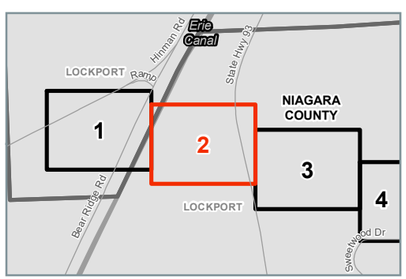
SHEET 3

Cu
W
RhA
PsA
Cb
Ca

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art. 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

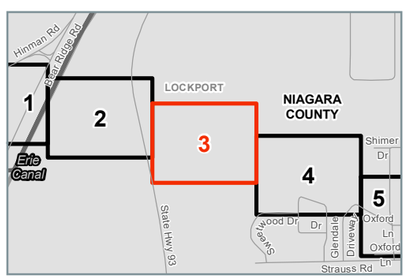
FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



SHEET 3 OF 94

PsA
ShB
OdB
Lc
600
SHEET 2
NaA
CnB
Ca
NYSDEC WETLAND LP-23
Lg
WETLAND 005
PEM
NYSDEC FWW LP-23
Mf
SHEET 4
STATE HWY 93
Minor Tribs to Tonawanda Creek (C)
590
600
610
Cb
FO
6
7

H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

WETLAND 005
PEM
NYSDEC FWW LP-23

WETLAND 006
PEM

DP-011

DP-012

CnB
ShB
OdB
Mf
ArB
AsA
OnB
OdA

SWEETWOOD DR
GLENDALE DR
DRIVEWAY

600
610
620

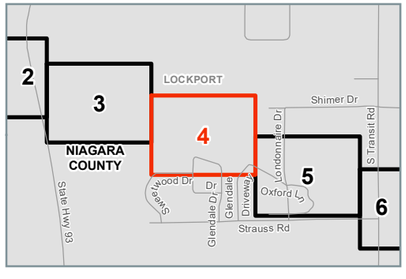
FO
8
8-1
9
10

SHEET 3
SHEET 5

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



SHEET 4 OF 94

H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

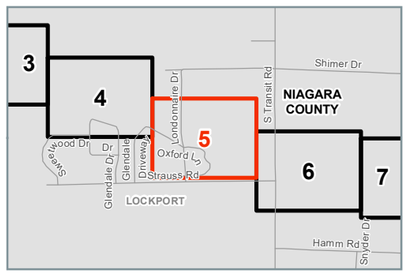
NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

OdB
OdB
OvA
CcB
OvA
OdA
HIB
Lc
OvA
SHEET 4
SHEET 6
WETLAND 007
PEM
DP-013
DP-014
10
11
11
12
12
630
FO
DRIVEWAY
LONDONAIRE DR
OXFORD LN
UNNAMED STREET
STRAUSS RD

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

WETLAND 007
PEM

HIA

SHEET 5

SHEET 7

OdA

OvA

HIA

STATE HWY 78

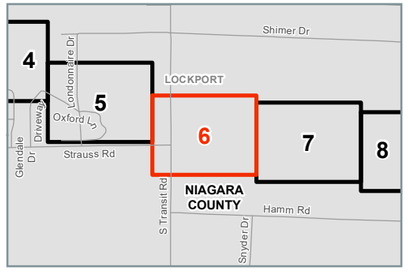
STRAUSS RD

13 13 14 15 15 16

FO

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

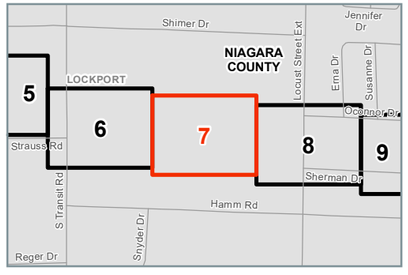
FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

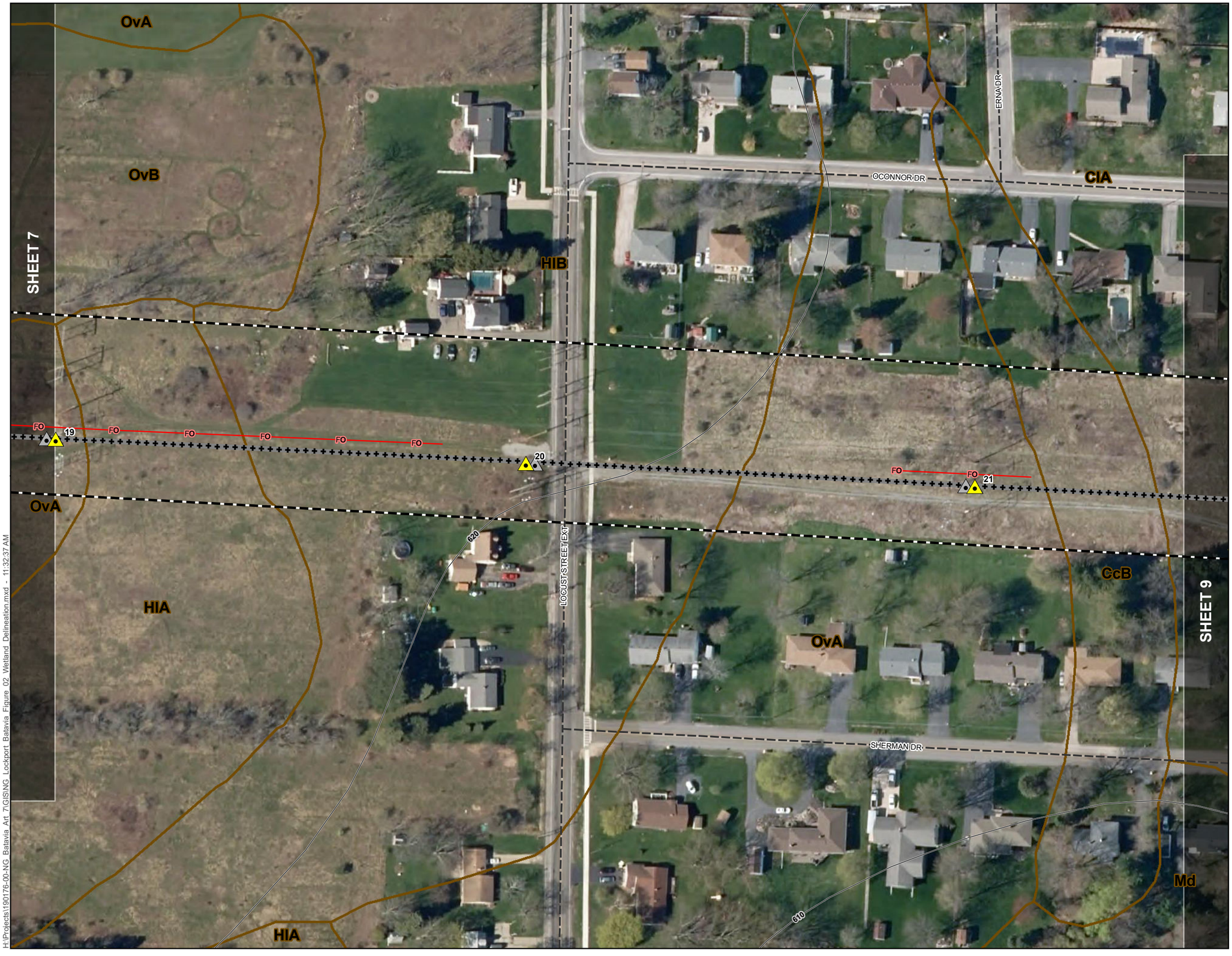
- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

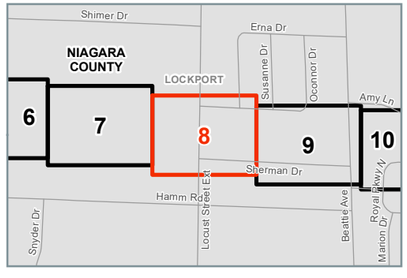
FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- FO Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

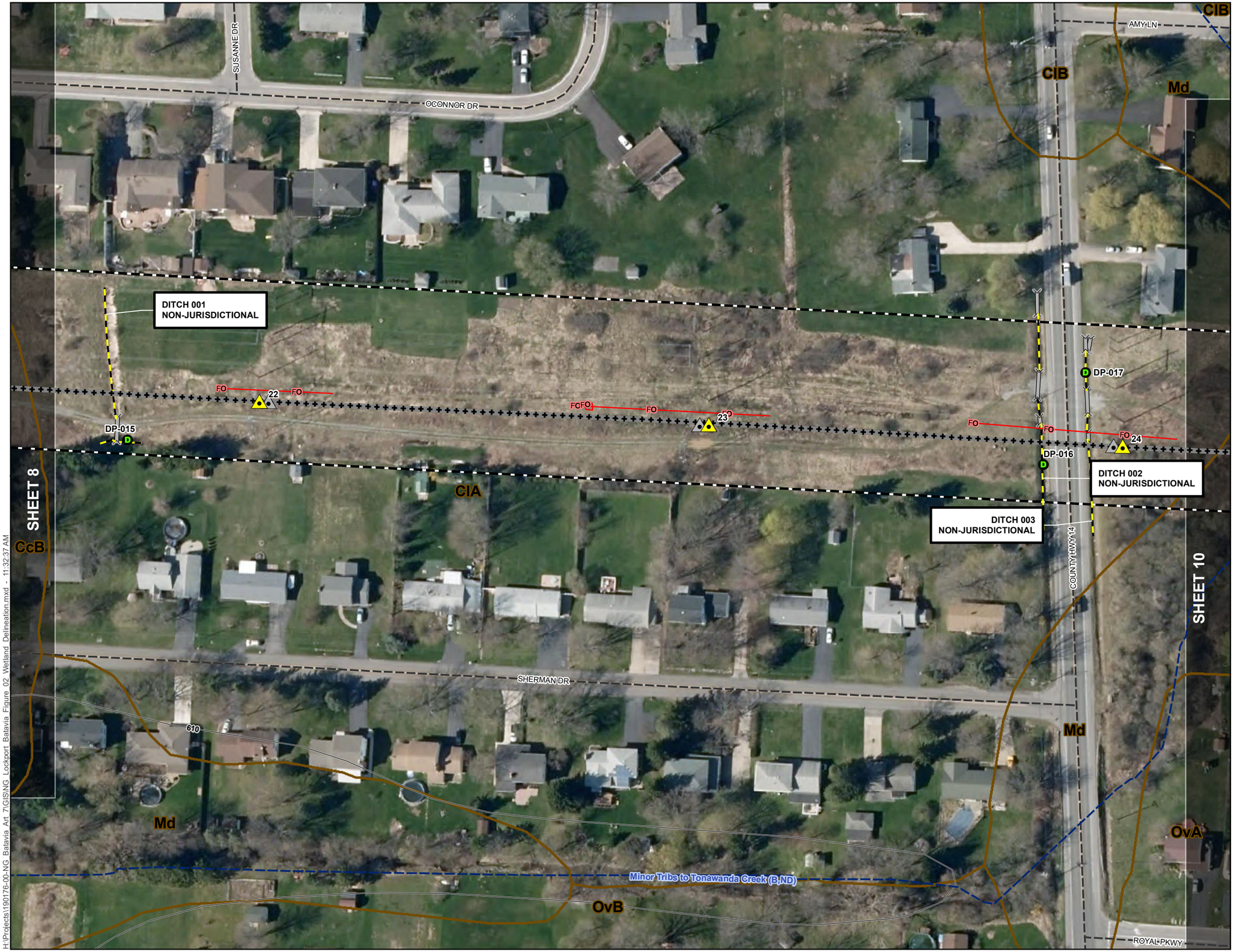
Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



FISHER ASSOCIATES

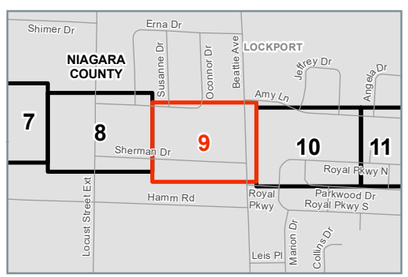
NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP



- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet

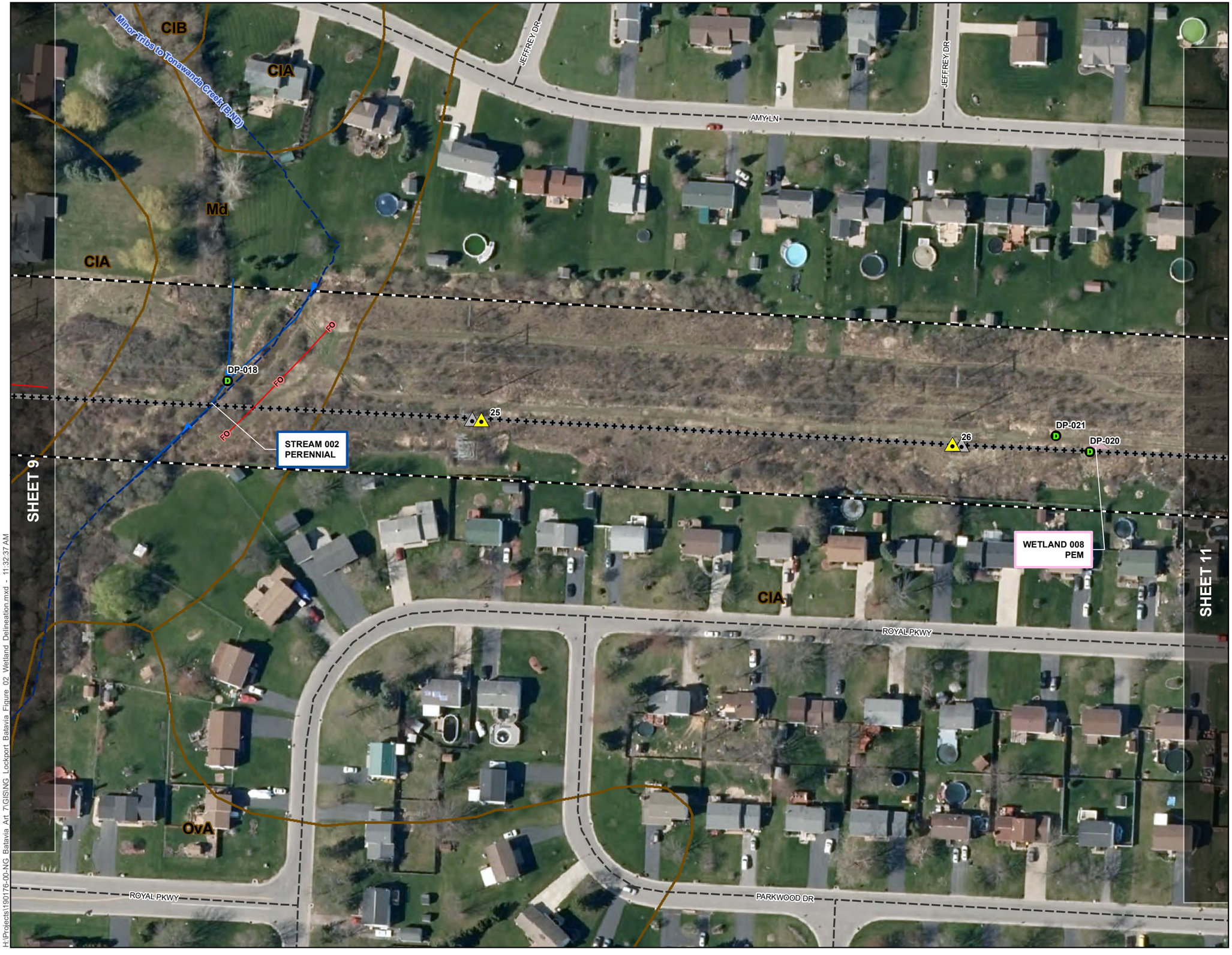


SHEET 9 OF 94

H:\Projects\190176-00\NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

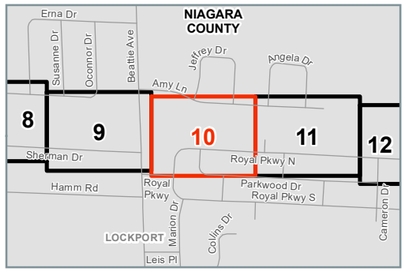
NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP



- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet

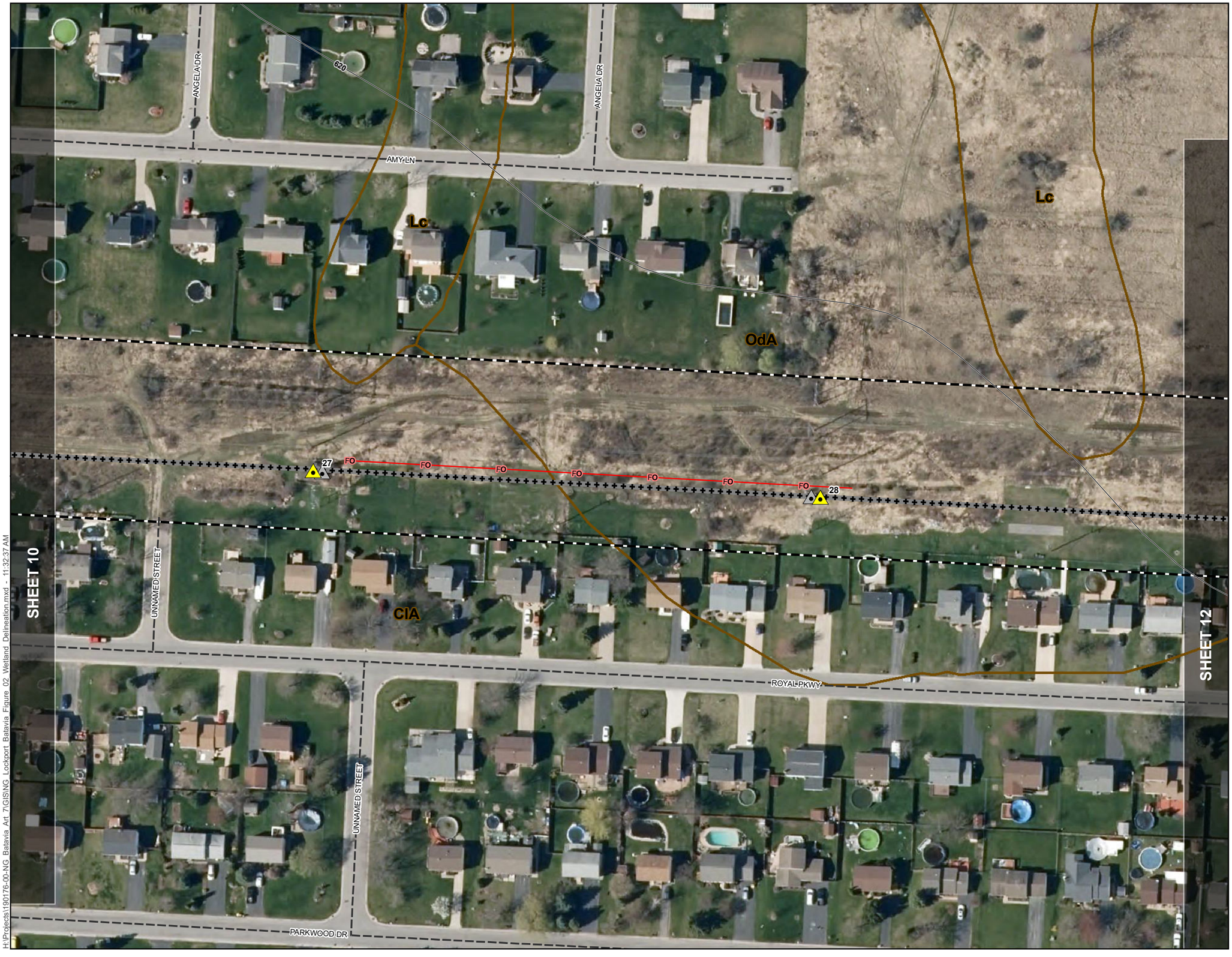


SHEET 10 OF 94

H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

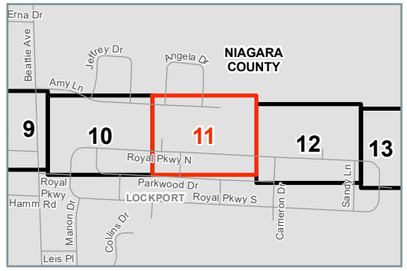
NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP



- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



SHEET 11 OF 94

H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

SHEET 11

SHEET 13

OvA
CIA
OdA
Lc
Md

STREAM 003
INTERMITTENT

DP-022

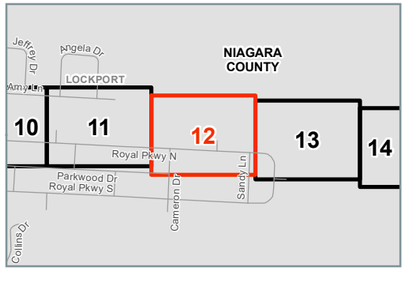
29
30
31
FO
620

ROYAL PKWY
UNNAMED STREET
CAMERON DR
PARKWOOD DR
SANDY LN

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

STREAM 003
INTERMITTENT

Lc

OvA

CIA

ROYAL PKWY

UNNAMED STREET

SHEET 12

SHEET 14

FO

31

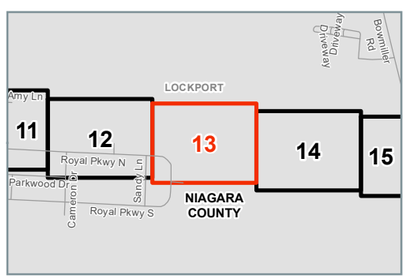
32

33

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

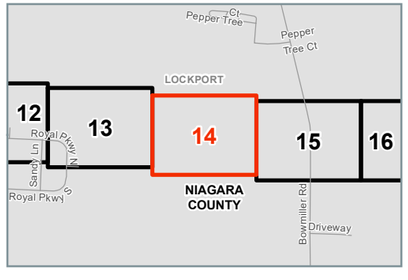
FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

OvA

OdA

CIA

STREAM 004
INTERMITTENT

DITCH 005
NON-JURISDICTIONAL

DITCH 004
NON-JURISDICTIONAL

DP-024

DP-019

FO

36

37

BOWMILLER RD

SHEET 14

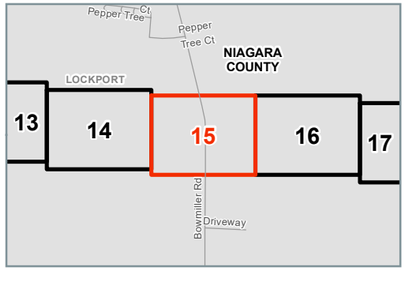
SHEET 16

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

N

0 50 100 Feet



SHEET 15 OF 94

H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

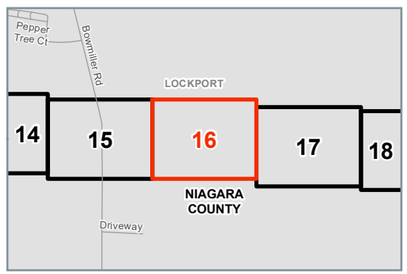
FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

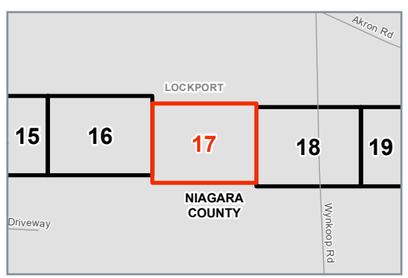
FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- FO Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

SHEET 17

SHEET 19

620

620

CIA

WYNKOOP RD

STREAM 005
INTERMITTENT

FO 43 FO

FO 44 FO FO

FO 45 FO

DP-031

DP-032

WETLAND 011
PEM

Lc

OdA

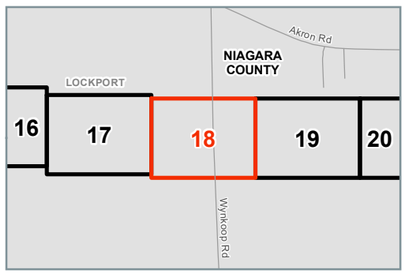
Md

H:\Projects\190176-00-NG Batavia Art. 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

SHEET 18

SHEET 20

CIA

STREAM 005
INTERMITTENT

DP-030

DP-028

DP-029

WETLAND 010
PEM

FO 46 FO

FO 47 47

FO 48 FO

Md

OvA

OdA

ApA

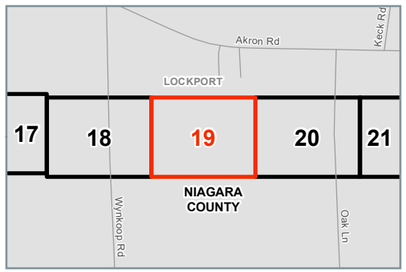
Sw

610

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

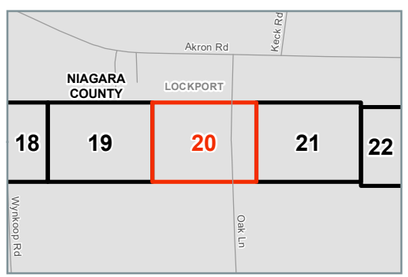
NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

CIA
CIA
ApA
HIA
SHEET 19
SHEET 21
OAKLN
DP-033
DITCH 007
NON-JURISDICTIONAL
DP-025
FO
49
49
FO
FO
50
FO
DITCH 006
NON-JURISDICTIONAL
DP-027
DP-026
STATION
WETLAND 009
PEM
WETLAND 009
PSS
WETLAND 012
PEM
610
Md
OvA
OvA
ApA
Sw
Lc

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- FO Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

ApA
HIA
Md
OvA
Lc
OvA

WETLAND 012
PEM

STREAM 006
INTERMITTENT

DP-035
DP-034

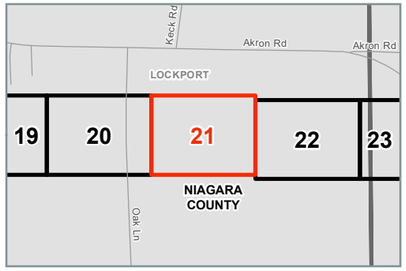
51
52
53
FO

SHEET 20
SHEET 22

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

FISHER ASSOCIATES

NATIONAL GRID
LOCKPORT-BATAVIA #112 REBUILD PROJECT
FIGURE 2: WETLAND AND WATERCOURSE DELINEATION MAP

SHEET 21

SHEET 23

OvA

OdA

Lc

STREAM 006
INTERMITTENT

WETLAND 014
PEM
NYSDEC FWW LP-22

DP-036

DP-040

DP-041

FO 53 FO FO FO

FO 54 FO

FO 55 FO

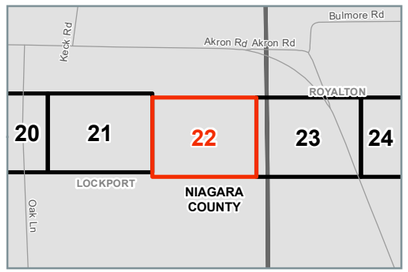
NYSDEC WETLAND LP-22

NYSDEC WETLAND LP-22

- Data Point
- Field Observed NG Structure Location
- Observed 2019 Habitat
- Existing Structure
- Proposed Structure
- Remove Structure
- Gate
- Fence
- Treeline
- NYSDEC Stream
- Transmission Line
- Transmission Line Reroute
- FO Underground Fiber Optic Line
- Road
- 10' Contour
- Delineated Jurisdictional Ditch
- Delineated Non-Jurisdictional Ditch
- Delineated Continuation Line
- Delineated Culvert
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Delineated Waterbody
- Delineated Perennial Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- Delineated PSS Wetland
- Delineated PUB Wetland
- Delineated Natural Drainage
- NYSDEC Wetland
- NYSDEC Wetland 100' Adjacent
- NRCS Soil Complex Boundary
- Project Study Limits
- Wildlife Management Area (WMA)
- Matchline

Map Revision Date: 1/19/2021 | Aerial Date: 2017

0 50 100 Feet



H:\Projects\190176-00-NG Batavia Art 7\GIS\NG Lockport Batavia Figure 02 Wetland Delineation.mxd - 11:32:37 AM

TABLES

Table 1
Wetland Delineation Summary

Wetland ID	Map Sheet #	Associated Data Point #	Associated Photo #	Cowardin Classification	Presumed Federal / State Jurisdiction[2]	Coordinates		Wetland Area within Study Limits		Soils	
						Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage
001	1	DP-001 & DP-002	1 thru 4	PEM	Federal	43.147959	-78.717049	231	0.01	Cu	5
								4,338	0.10	HmA	0
								12,723	0.29	OwA	5
002	1	DP-003 & DP-004	5 thru 8	PEM	Federal	43.147508	-78.718378	13,653	0.31	HmA	0
								9,968	0.23	OwA	5
003	2	DP-006 & DP-007	9 thru 12	PEM	Federal	43.147437	-78.715828	8,937	0.21	Cu	5
004	2	DP-008 & DP-009	13 thru 16	PEM	Federal	43.147641	-78.714981	13,177	0.30	Cb	92
								454	0.01	Cu	5
005	2	DP-009 & DP-010	15 thru 18	PEM	Federal & State (NYSDEC LP-33)	43.147011	-78.711786	135,235	3.10	Ca	86
								84,904	1.95	Cb	92
								31,051	0.71	CnB	4
								48,509	1.11	Lg	92
								54,247	1.25	Mf	57
								61,790	1.42	NaA	4
								55,303	1.27	PsA	0
006	4	DP-011 & DP-012	19 thru 22	PEM	---	43.144911	-78.703301	14,369	0.33	OdB	4
007	5	DP-013 & DP-014	23 thru 26	PEM	---	43.144030	-78.699466	2,100	0.05	CcB	0
								33,165	0.76	HlB	0
								42,712	0.98	OdA	5
								1,641	0.04	OvA	4
008	10	DP-020 & DP-021	42 thru 45	PEM	---	43.141885	-78.674831	214	0.00	ClA	8
009	20	DP-026 & DP-027	53 thru 61	PEM	---	43.140342	-78.629717	13,358	0.31	HlA	0
								5,098	0.12	Md	82
				PSS		43.140252	-78.629628	3,506	0.08	HlA	0
								1,515	0.03	Md	82
010	19	DP-029 & DP-030	65 thru 68	PEM	---	43.140324	-78.635340	8,488	0.19	ClA	8
011	18	DP-031 & DP-032	69 thru 72	PEM	Federal	43.140451	-78.638277	31,006	0.71	ClA	8
012	20 & 21	DP-034 & DP-035	76 thru 79	PEM	Federal	43.140640	-78.628782	6,472	0.15	HlA	0
								56,035	1.29	Lc	95
								90,184	2.07	Md	82
								12,157	0.28	OvA	4
013	23	DP-038 & DP-039	86 thru 89	PEM	---	43.140350	-78.616630	92,819	2.13	OdA	5
								26,101	0.60	OvA	4
014	22 & 23	DP-040 & DP-041	90 thru 93	PEM	Federal	43.140153	-78.621078	11,907	0.27	Lc	95
								165,811	3.81	OdA	5
015	23 & 24	DP-044 & DP-045	100 thru 103	PEM	---	43.140268	-78.610288	6,463	0.15	OdA	5
								146,229	3.36	OvA	4

Table 1
Wetland Delineation Summary

Wetland ID	Map Sheet #	Associated Data Point #	Associated Photo #	Cowardin Classification	Presumed Federal / State Jurisdiction[2]	Coordinates		Wetland Area within Study Limits		Soils	
						Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage
016	25, 26, & 27	DP-046, DP-047, DP-048	104 thru 109	PEM	Federal & State (NYSDEC GA-22)	43.140223	-78.606831	269,256	6.18	Lc	95
								11,071	0.25	OdA	5
				PFO		43.139959	-78.601419	676	0.02	Lc	95
								233	0.01	OdA	5
				PSS		43.140387	-78.607865	87,681	2.01	Lc	95
								2,763	0.06	OdA	5
017	27	DP-051 & DP-052	113 thru 116	PEM	Federal & State (NYSDEC GA-21)	43.140196	-78.597451	127,355	2.92	OdA	5
								4,827	0.11	OvA	4
018	27 thru 32	DP-054 & DP-055	120 thru 123	PEM	Federal & State (NYSDEC GA-21)	43.140361	-78.591266	29,568	0.68	ClA	8
								292,467	6.71	Lc	95
								55,135	1.27	NaA	4
								712,834	16.36	OdA	5
019	36	DP-061 & DP-062	139 thru 142	PEM	Federal	43.139899	-78.557668	874	0.02	ApA	4
								11,600	0.27	Lc	95
								57,091	1.31	OdA	5
020	36	DP-064 & DP-065	146 thru 149	PEM	Federal & State (NYSDEC GA-6)	43.139729	-78.553800	158,890	3.65	Lc	95
								88,781	2.04	OdA	5
021	41 & 42	DP-068 & DP-069	156 thru 159	PEM	---	43.141932	-78.530627	13,612	0.31	OdA	5
022	86 & 87	DP-071 & DP-072	163 thru 166	PEM	State (John White WMA)	43.076192	-78.382543	62,009	1.42	OdA	5
								30,177	0.69	SeB	0
								7,885	0.18	W	0
				PUB		43.075732	-78.381871	666	0.02	OdA	5
								23,558	0.54	W	0
023	59 thru 77	DP-073, DP-074, DP-085, DP-086, DP-098 thru DP-105	167 thru 170 & 174 thru 177 & 225 thru 249	PEM	Federal & State (NYSDEC AK-2, AK-3, AK-4, & Tonawanda WMA)	43.124258	-78.456573	6,805	0.16	ApA	4
								69,848	1.60	ArB	0
								5,503	0.13	CaA	95
								1,002,090	23.00	CbA	95
								59,027	1.36	ElB	0
								115,575	2.65	Fo	96
								58	0.001	FpA	10
								62,972	1.45	GnB	0
								193	0.00	HlB	0
								170,288	3.91	Ld	92
								582,089	13.36	Ma	93
								18	0.0004	MnA	5
								278,272	6.39	Pd	100
								7,259	0.17	PsB	0
								17,185	0.39	RoA	0
								172,109	3.95	W	0
								48,782	1.12	Wy	90

Table 1
Wetland Delineation Summary

Wetland ID	Map Sheet #	Associated Data Point #	Associated Photo #	Cowardin Classification	Presumed Federal / State Jurisdiction[2]	Coordinates		Wetland Area within Study Limits		Soils	
						Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage
23 (cont.)	59 thru 77	DP-073, DP-074, DP-085, DP-086, DP-098 thru DP-105	167 thru 170 & 174 thru 177 & 225 thru 249	PFO	Federal & State (NYSDEC AK-2, AK-3, AK-4 & Tonawanda WMA)	43.118017	-78.444531	9,063	0.21	ArB	0
								95	0.002	CbA	95
								10,057	0.23	Ld	92
				PSS		43.124194	-78.462039	1,155	0.03	CaA	95
								23,618	0.54	CbA	95
								1,980	0.05	RoA	0
								17,783	0.41	Wy	90
024	42 & 43	DP-076 & DP-077	178 thru 181	PEM	Federal	43.142470	-78.525944	26,474	0.61	Lc	95
								57,870	1.33	OdA	5
025	44	DP-080 & DP-081	188 thru 191	PEM	Federal	43.143351	-78.519898	43,019	0.99	Ma	93
								11,806	0.27	RbA	8
026	46	DP-082 & DP-083	192 thru 195	PEM	---	43.145012	-78.508843	102,129	2.34	OdA	5
								745	0.02	OvA	4
027	54, 55, & 56	DP-087, DP-088, DP-089	199 thru 204	PEM	Federal & State (NYSDEC MD-1 Tonawanda WMA)	43.132951	-78.475908	7,354	0.17	Lc	95
								250,180	5.74	Ma	93
								17,118	0.39	OdA	5
				PFO		43.131006	-78.472454	50,527	1.16	Ma	93
								44,784	1.03	OdA	5
028	80 & 81	DP-090 & DP-091	205 thru 208	PSS	Federal	43.097575	-78.417185	61,572	1.41	CaA	95
							Total	**6,690,281**	**153.59**		

Notes:

1. A field delineation was performed by Fisher Associates between August 6 and October 2, 2019; June 16, 2020; and November 12 and 13, 2020
2. Federal / State Jurisdiction and Connectivity classifications provided represent the professional opinion of Fisher Associates and the interpretation of the U.S. Navigable Waters Protection Rule under the Clean Water Act and NYS ECL Article 24: Freshwater Wetlands Program. For approval of these classifications, a request for Jurisdictional Determination should be made to the US Army Corps of Engineers and/or the NYS Department of Environmental Conservation.

Table 2
Stream Delineation Summary

Stream ID	Map Sheet #	Associated Data Point #	Associated Photo Log #	Stream Name	Tributary of	Flow Regime	Flow Direction	Presumed Federal / State Jurisdiction[2]	NYSDEC Classification[3,5,6,7]	NYSDEC Standard Designation[4,6]	Latitude	Longitude	Stream Width (Average OHWM, Ft.)	Stream Width (Average Top of Bank, Ft.)	Stream Reach Length (Within Study Limits, Linear Ft.)
001*	2 thru 3	DP-005	N/A	NYS Barge Canal (Erie Canal) (Portion 1)	Lake Erie	Perennial	East	Federal & State*	C	ND	43.147687	-78.716270	84	84	418
002	10	DP-018	36, 37, 38	Unnamed Tributary to Tonawanda Creek	NYS Barge Canal (Erie Canal)	Perennial	South	Federal & State	B	ND	43.142075	-78.678417	20	20	340
003	12	DP-022	46, 47, 48	Unnamed Tributary to Mud Creek	Tonawanda Creek	Intermittent	West	Federal	D	ND	43.141585	-78.666715	2	3	300
004	16	DP-023	49, 50, 51	Unnamed Tributary to Mud Creek	Tonawanda Creek	Intermittent	East	Federal	D	ND	43.140759	-78.649781	5	9	304
005	18 thru 19	DP-028	62, 63, 64	Unnamed Tributary to Mud Creek	Tonawanda Creek	Intermittent	West	Federal	D	ND	43.140579	-78.638010	4	6	1,240
006	22	DP-036	80, 81, 82	Unnamed Tributary to Mud Creek	Tonawanda Creek	Intermittent	North	Federal	D	ND	43.140302	-78.622527	4	6	197
007	29	DP-056	124, 125, 126	Unnamed Tributary to Mud Creek	Tonawanda Creek	Intermittent	North	Federal	C	ND	43.140041	-78.588483	4	10	296
008	36	DP-063	143, 144, 145	Unnamed Tributary to Mud Creek	Tonawanda Creek	Intermittent	South	Federal	C	ND	43.139888	-78.554292	3	6	155
009**	62	DP-084	196, 197, 198	Unnamed Tributary to Mud Creek	Tonawanda Creek	Perennial	West	Federal & State**	C	ND	43.118740	-78.452938	10	15	117
010	54	DP-094	215, 216, 217	Mud Creek and Tributaries	Tonawanda Creek	Perennial	East	Federal	C	ND	43.136002	-78.480426	20	25	208
														Total:	**3,575**

Notes:

1. A field delineation was performed by Fisher Associates between August 6 and October 2, 2019; June 16, 2020; and November 12 and 13, 2020
2. In accordance with the Navigable Waters Protection Rule, streams/tributaries that are perennial and/or intermittent and contribute surface flow to WOTUS are federally jurisdictional by the EPA and USACE (see Section 3.0 for more information).
3. NYSDEC Classification Designations:
   - AA or A: waters used as a source of drinking water
   - B: waters with best usage for swimming and other contact recreation, but not for drinking water
   - C: waters supporting fisheries and suitable for non-contact activities
   - D: other waters, the lowest classification standard
4. NYSDEC Standard Designations:
   - ND: no assigned designation
   - T: may support a trout population
   - TS: may support trout spawning
5. Waters with classifications of A, B, and C may, but will not always have an associated Standard Designation relative to trout use.
6. Streams with a classification of AA, A, B, or with a classification of C with a standard of "T" or "TS" are referred to a "Protected Streams" and are subject to the stream protection provisions of the New York State Protection of Waters regulations.
7. Streams that do not appear on the NYSDEC mapping are assigned to Class D, with the exception of any "continuous flowing natural stream" which is assigned the same classification as the water to which it is a tributary. Due to errors in the available electronic mapping, Fisher recommends coordination with NYSDEC to verify stream designations of any streams that may be impacted by the Project.

* Stream 001 is the New York State Barge Canal also known as the Erie Canal. The New York State Canal Corportation is governing body over the canal.

** Stream 009 is located within the Tonawanda Wildlife Management Area.

Table 3:
Ditch Delineation Summary

Ditch ID	Map Sheet #	Associated Data Point #	Associated Photolog #	Flow Regime	Federal / State Jurisdiction	Latitude	Longitude	Ditch Width (Average OHWM, Ft.)	Ditch Width (Average Top of Bank, Ft.)	Ditch Reach Length (Within Project Study Limits, Linear Ft.)
001	9	DP-015	27 thru 29	Intermittent	---	43.142050	-78.683492	2	2	42
								5	5	131
002	9	DP-016	30 thru 32	Ephemeral	---	43.142004	-78.679707	2	3	160
003	9	DP-017	33 thru 35	Ephemeral	---	43.142009	-78.679512	2	3	173
004	15	DP-019	39 thru 41	Ephemeral	---	43.140827	-78.653565	3	4	168
005	15	DP-024	52 thru 54	Ephemeral	---	43.140819	-78.653383	1	4	165
006	20	DP-025	55 thru 57	Ephemeral	---	43.140523	-78.629180	1	10	107
007	20	DP-033	73 thru 75	Ephemeral	---	43.140538	-78.629017	2	5	119
008	23	DP-037	83 thru 85	Ephemeral	---	43.140140	-78.614764	2	6	159
009	23	DP-042	94 thru 96	Ephemeral	---	43.140418	-78.614718	2	6	173
010	24	DP-043	97 thru 99	Intermittent	Federal	43.140206	-78.609395	3	8	197
011	27	DP-050	110 thru 112	Ephemeral	---	43.140263	-78.596273	2	6	150
012	32	DP-053	117 thru 119	Ephemeral	---	43.140013	-78.573944	2	6	155
013	27	DP-057	127 thru 129	Ephemeral	---	43.139966	-78.596112	3	5	168
014	32	DP-058	130 thru 132	Ephemeral	---	43.140057	-78.573731	3	5	169
015	35	DP-059	133 thru 135	Ephemeral	---	43.139674	-78.561544	2	4	145
016	35	DP-060	136 thru 138	Intermittent	---	43.139692	-78.561408	3	5	141
017	40	DP-066	150 thru 152	Ephemeral	---	43.140383	-78.539286	2	3	159
018	40	DP-067	153 thru 155	Intermittent	---	43.140691	-78.539061	3	5	125
019	88	DP-070	160 thru 162	Intermittent	---	43.081652	-78.391301	2	6	163
020	43	DP-075	171 thru 173	Ephemeral	---	43.142556	-78.524528	1	3	163
021	43	DP-078	182 thru 184	Ephemeral	---	43.142563	-78.524378	1	3	171
022	45	DP-079	185 thru 187	Ephemeral	---	43.144270	-78.514723	1	3	214
023	87	DP-092	209 thru 211	Intermittent	---	43.074244	-78.379761	1	5	225
024	51 & 52	DP-093	212 thru 214	Ephemeral	---	43.140726	-78.488008	1	4	184
025	93	DP-096	220 thru 222	Ephemeral	---	43.073207	-78.362096	.5	2	717
									Totals:	**4,643**

Notes:

1. A field delineation was performed by Fisher Associates between August 6 and October 2, 2019; June 16, 2020; and November 12 and 13, 2020.
2. Jurisdiction classifications provided represent the professional opinion of Fisher Associates. For approval of these classifications, a request for Jurisdictional Determination should be made to the US Army Corps of Engineers.
3. In accordance with the Navigable Waters Protection Rule, ditches/tributaries that are perennial and/or intermittent and contribute surface flow to WOTUS are federally jurisdictional by the EPA and USACE (see Section 3.0 for more information).
4. Ditches are not regulated by the New York State Department of Environmental Conservation unless they are determined to be altered natural tributaries possessing a state-regulated classification and/or standard designation.
5. Square feet and acreage were calculated in ArcGIS and Excel with more significant figures than are shown. Square footage is displayed as the nearest whole number, and acreage is displayed as either the nearest tenth or significant figure. Values may not entirely add up based on what is displayed because the total sums are based on the full value of each cell.

APPENDIX A
WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 8/6/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-001

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 3%

Subregion (LRR or MLRA): LRR-L Lat: 43.147779 Long: -78.717368 Datum: NAD '83

Soil Map Unit Name: Ovid Silt Loam, limestone substratum, 0 to 3 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland Data Point for ~~Wetland~~ Wetland 001.

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)
- N/A Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 001

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Elaeagnus umbellata	5%	N	NL
2.			
3.			
4.			
5.			
6.			
7.			
	5% = Total Cover		
Herb Stratum (Plot size: 5')			
1. Centaurea stoebe	70%	N	NL
2. Cirsium pereane	20%	Y	FACU
3. Solidago canadensis	20%	Y	FACU
4. Daucus carota	15%	Y	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No Y

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

Autumn Olive & Spotted Knapweed do not have an indicator status so they were not included in total percent cover.

SOIL

Sampling Point: DP-00 i

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
0-7	10YR4/3	100%	-	-	-	-	S:L	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 7"

Hydric Soil Present? Yes ____ No X

Remarks:

Dug Multiple Soil pits and couldn't get past 7". Hit Rock every time.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 8/6/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-002

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR-L Lat: 43.147713 Long: -78.717255 Datum: NAD '83

Soil Map Unit Name: OnA- Ovid silt loam, limestone substratum, 0 to 3 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No	**Is the Sampled Area within a Wetland?**	**Yes X No**
Hydric Soil Present?	Yes X No		
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland Site ID: WL 001	

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

Datapoint ~~DP~~ for Wetland 001

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes X No ____	Depth (inches): 2"	
Water Table Present?	Yes X No ____	Depth (inches): 0"	
Saturation Present? (includes capillary fringe)	Yes X No ____	Depth (inches): 0"	**Wetland Hydrology Present? Yes X No ____**

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 002

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		

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

Herb Stratum (Plot size: 5')			
1. Typha angustifolia	100%	Y	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: DP-002

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100%	-	-	-		CL	
8-20+	10 YR 3/1	60%	10YR 5/8	40%	C	M	clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 08/6/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 003

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 2%

Subregion (LRR or MLRA): LRR L Lat: 43.147800 Long: -78.718085 Datum: NAD '83

Soil Map Unit Name: HmA- Hilton & Cayuga soils, 0 to 3 percent slopes, bedrock substratum NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland Data Point for Wetland 002

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 two required)

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

Field Observations:

Surface Water Present? Yes _____ No N Depth (inches): –

Water Table Present? Yes _____ No N Depth (inches): –

Saturation Present? (includes capillary fringe) Yes _____ No N Depth (inches): –

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP- 003

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Melilotus officinalis	60%	Y	FACU
2. Daucus carota	50%	Y	UPL
3. Centaurea stoebe	40%	~~Y~~ N	NL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	150 ~~150~~ = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% ~~100%~~ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ___ No X

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

Spotted Knapweed didn't have an indicator status so it was not included in total percent cover

SOIL Sampling Point: DP-003

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
~~10YR4/3~~								
0-6	10YR4/3	100%	-	-	-	-	S:L	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 6"

Hydric Soil Present? Yes ____ No X

Remarks:

Dug Multiple soil pits but hit rock each time.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 8/6/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-004

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): Concave Slope (%): 2%

Subregion (LRR or MLRA): LRR-L Lat: 43.197883 Long: -78.717988 Datum: NAD '83

Soil Map Unit Name: HmA - Hilton & Canaga soils, 0 to 3 percent slopes, bedrock substratum NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: WL-002

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

PEM, Data point for Wetland 002

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)
- X 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)
- N/A Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes X No ____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 004

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Typha angustifolia	100%	Y	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	Ø = Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: DP-004

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/2	70%	10YR 5/6	30%	C	M	CL	
10-20	10YR 3/2	50%	10YR 5/4	25%	C	M	CL	
			2.5 [illegible] 5/6	25%	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 8/7/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 008

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 2%

Subregion (LRR or MLRA): LRR-L Lat: 43.147559 Long: -78.715777 Datum: NAD '83

Soil Map Unit Name: Cv - Cut & Fill Land NWI classification: Not classified.

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No	**Is the Sampled Area within a Wetland?**	**Yes X No**
Hydric Soil Present?	Yes X No	If yes, optional Wetland Site ID:	UL-003
Wetland Hydrology Present?	Yes X No		

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

PEM, Data point for Wetland 003

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)
- N/A Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP- 004

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Phragmites australis	90%	Y	FACW
2. Centaurea stoebe	15%	-	NL
3. Solidago canadensis	10%	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

Spotted knapweed does not have an indicator status therefore not included in the total cover.

SOIL

Sampling Point: DP-006

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
0-7 in	10 YR 3/2	100 %					silty loam	
7-26 in	10 YR 3/2	60 %	10 YR 5/1	30 %	C	M	clay loam	
			10 YR 5/8	10 %	C	M	clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 8/7/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 07

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2%

Subregion (LRR or MLRA): LRR-L Lat: 43.147592 Long: -78.715574 Datum: NAD '83

Soil Map Unit Name: Cu - Cut and Fill land NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland point for Wetland 03

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)
- n/a Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP-007

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Centaurea stoebe	100%	-	NL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ___ No N

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

Centaurea stoebe has no indicator status so it was not included in total percent cover. There is no percent cover and Spotted Knapweed being the only species, problematic veg. was used. Dot spotted Knapweed is normally found in upland areas no veg. point did not pass.

SOIL

Sampling Point: DP- 67

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0- 8in	10YR 4/3	100%					Silty loam	
8+ in								rock at 8+ in

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 8"

Hydric Soil Present? Yes ____ No X

Remarks:

Multiple pits were dug but rock was hit at each one around 8".

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 8/7/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 008

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 3%

Subregion (LRR or MLRA): LRR-L Lat: 43.147496 Long: -78.714993 Datum: NAD '83

Soil Map Unit Name: Cb - Canandaigua silt loam NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: WL-004

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

Data Point for Wetland 004, PEM

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)
- N/A Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP-008

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5')			
1. Lythrum salicaria	60%	Y	OBL
2. Phalaris arundinacea	40%	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: DP-605

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
0-7 in	10YR 3/1	90%	7.5YR 5/8	10%	C	M	SiH clay loam	
7-20in	10YR 4/1	80%	2.5Y 5/4	20%	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 8/7/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-004

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 2%

Subregion (LRR or MLRA): LRR-L Lat: 43.147217 Long: -78.714995 Datum: NAD '83

Soil Map Unit Name: CL - Canandaigua silt loam NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland for Wetland 004 & Wetland 005

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)
- N/A Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP-009

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Centaurea stoebe	90%	–	NI
2. Solidago canadensis	15%	Y	~~UPL~~ FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	15% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

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

Spotted Knapweed does not have an indicator status and was not used in total percent cover.

SOIL

Sampling Point: DP- 009

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	10 YR 3/2	100%					S:LC	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- X Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel / Rock

Depth (inches): 4"

Hydric Soil Present? Yes ____ No X

Remarks:

Dug Multiple soil pits and encountered rock at ~4"

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara county Sampling Date: 8/7/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 680

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR-L Lat: 43.147256 Long: -78.712626 Datum: NAD '83

Soil Map Unit Name: PsA- Phelps gravelly loam, 0 to 5 percent slopes NWI classification: PFOIE

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes Y	No	**Is the Sampled Area within a Wetland?** Yes Y No
Hydric Soil Present?	Yes Y	No	
Wetland Hydrology Present?	Yes Y	No	If yes, optional Wetland Site ID: WL-CC5

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

PEM, Data point for WL-CC5, DEC wetland CP-23

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes Y	No ____	Depth (inches): 3"
Water Table Present?	Yes Y	No ____	Depth (inches): 0"
Saturation Present? (includes capillary fringe)	Yes Y	No ____	Depth (inches): 0"

Wetland Hydrology Present? Yes X No ____

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP-C10

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Phragmites australis	80%	Y	FACW
2. Lythrum salicaria	30%	Y	OBL
3. Phalaris arundinacea	10%	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	120% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: DP-010

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR3/1	80	7.5YR 5/6	20	C	M	SiCL	
8-20	10YR4/1	70%	2.5Y 5/4	30%	C	M	CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 8/7/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 011

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 1%

Subregion (LRR or MLRA): LRR-L Lat: 43.145063 Long: -78.763256 Datum: NAD '83

Soil Map Unit Name: OdB- Odessa silty clay loam, 3% percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X No	
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland Site ID: WL-006

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

Wetland point for Wetland 006, PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 2"

Water Table Present? Yes X No ____ Depth (inches): 3"

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 0"

Wetland Hydrology Present? Yes X No ____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 01

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Lythrum salicaria	50%	Y	OBL
2. Eupatorium perfoliatum	40%	Y	FACW
3. Verbena hastata	20%	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: DP- 01

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10 in	10YR 2/1	100%					Silty loam clay	
10-20in	10YR 2/1	80%	7.5YR 5/6	20%			silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 8/7/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-612

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2-6

Subregion (LRR or MLRA): LRR-L Lat: 43.144762 Long: -78.762767 Datum: NAD '83

Soil Map Unit Name: OdA - Odessa silty clay loam, 0 to 3 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland point for Wetland 606

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)
- NW Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP- 012

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Centaurea stoebe	70%	-	NI
2. Solidago canadensis	20%	Y	FACU
3. Solidago juncea	00%	-	NI
4. Rudbeckia hirta	15%	Y	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

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

Spotted Knapweed & Early goldenrod do not have an indicator status therefore not included in listed percent cover.

SOIL

Sampling Point: DP-12

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-11 in	10 YR 3/2	100%					Silt loam	
11-20in	10 YR 3/2	80%	5 YR 4/6	20%	C	M	Silt loam clay	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:_____

Depth (inches):_____

Hydric Soil Present? **Yes** _____ **No** _____

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 08/17/

Applicant/Owner: National Grid State: NY Sampling Point: DP-013

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR or MLRA): LRR-L Lat: 43.143867 Long: -78.694591 Datum: NAD '83

Soil Map Unit Name: CaB- Cayuga & Canandaigua silt loams, 2 to 6 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland Point for Wetland 007

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)
- N/A Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP-013

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Column percent	100%	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: DP-013

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
0-20	10YR 4/3	100					S:L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara County Sampling Date: 5/2/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-014

Investigator(s): James Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 3%

Subregion (LRR or MLRA): LRR-L Lat: 43.145683 Long: -78.698694 Datum: NAD '83

Soil Map Unit Name: OdA - Odessa silty clay loam, 0 to 3 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: WL-007

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

Data Point for Wetland 007

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- NA Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 1"

Water Table Present? Yes ____ No X Depth (inches): ~

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ~

Wetland Hydrology Present? Yes X No ____

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP-014

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Lythrum Salicaria	60%	Y	OBL
2. Phragmites australis	20%	Y	FACW
3. Scirpus cyperinus	10%	N	OBL
4. Eupatorium perfoliatum	5%	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: DP-014

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
0-12	10YR 3/2	80%	7.5YR 5/6	20	C	M	SiC	
12-20	10YR 3/2	60%	7.5YR 5/6	40	C	M	C	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes Y No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/12/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-020

Investigator(s): Jimmy Ireland / Bryan Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 2%

Subregion (LRR or MLRA): LRR-L Lat: 43.14157 Long: -78.674854 Datum: NAD '83

Soil Map Unit Name: CIA - Churchville silt loam - 0 to 2 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: UL-008

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

Data Point for Wetland -008

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 two required)

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

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): –

Water Table Present? Yes ____ No X Depth (inches): –

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): –

Wetland Hydrology Present? Yes X No ____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 020

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Fraxinus pennsylvanica	100%	Y	FACW
2. Acer saccharinum	100%	Y	FACW
3.			
4.			
5.			
6.			
7.			
	200% = Total Cover		
Herb Stratum (Plot size: 5')			
1. Bidens frondosa	40%	Y	FACW
2. Lythrum salicaria	30%	Y	OBL
3. Typha angustifolia	25%	Y	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. Vitis riparia	35%	Y	FAC
2.			
3.			
4.			
	35% = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL Sampling Point: DP-020

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
0-12	10YR 3/2	70	7.5YR 4/6	30	C	M	Si L	
12-20	10YR 3/2	60	7.5YR	25	C	M		
			10YR 2/2	15	C	M	Clay	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (If observed):

Type: N. A.

Depth (inches): ___

Hydric Soil Present? Yes ✓ No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/12/

Applicant/Owner: National Grid State: NY Sampling Point: DP 021

Investigator(s): Jimmy Toland / Bryan Moore Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Access road Local relief (concave, convex, none): Convex Slope (%): 2-6

Subregion (LRR or MLRA): LRR-L Lat: 43.141918 Long: -78.674993 Datum: NAD '83

Soil Map Unit Name: CIA - Churchville silt loam, 0 to 2 percent slopes NWI classification: Not class. Feat

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No Y	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No Y	
Wetland Hydrology Present?	Yes _____	No Y	If yes, optional Wetland Site ID: _____

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

Upland data point for Wetland 008

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 two required)

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

Field Observations:

Surface Water Present?	Yes _____	No Y	Depth (inches): -
Water Table Present?	Yes _____	No Y	Depth (inches): -
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): -

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 021

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Centaurea stoebe	60%	–	NI
2. Phleum pratense	40%	Y	FACU
3. Daucus carota	30%	Y	UPL
4. Solidago canadensis	20%	Y	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	150% = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

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

Spotted Knapweed is an invasive and does not have an indicator status, therefore it was not included in total cover.

SOIL

Sampling Point: DP-021

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
0-12	10yr 4/3	85	10yr 5/8	15	C	M	Si L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 12"

Hydric Soil Present? Yes ____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: ~~Lockport~~ Niagara Sampling Date: 8/13/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 026

Investigator(s): Jimmy Ireland | Bryan Monte Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2%

Subregion (LRR or MLRA): LRR-L Lat: 43.140207 Long: -78.630313 Datum: NAD '83

Soil Map Unit Name: HIA- Hilton silt loam, 0 to 3 percent slopes NWI classification: Not classified

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

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes Y No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes Y	No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes Y	No	
Wetland Hydrology Present?	Yes Y	No	If yes, optional Wetland Site ID: WL-009

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

PEM Data point for Wetland 009

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 two required)

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

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): –

Water Table Present? Yes _____ No X Depth (inches): –

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): –

Wetland Hydrology Present? Yes X No _____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 026

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	Ø = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	Ø = Total Cover		
Herb Stratum (Plot size: 5')			
1. Phragmites australis	100%	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	Ø = Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL Sampling Point: DP- 02

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
0-15	10yr 3/2	75	2.5yr 4/4	25	C	M	SiLC	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rocks

Depth (inches): 15"

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/13/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-007

Investigator(s): Jimmy Eyland / Bryan Munro Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 3%

Subregion (LRR or MLRA): LRR-L Lat: 43.140252 Long: -78.630497 Datum: NAD '83

Soil Map Unit Name: HIA - Hilton Silt loam, 0 to 3 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland Point for Wetland 009

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 two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 027

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Lonicera morrowii	15%	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	15% = Total Cover		
Herb Stratum (Plot size: 5')			
1. Solidago canadensis	80%	Y	FACU
2. Daucus carota	30%	Y	UPL
3. Poaceae sp.	50%	–	–
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

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

Poaceae wasn't able to be identified down to species therefore not included in total percent cover

SOIL

Sampling Point: DP-0267

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10yr 4/3	100					SL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 8"

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/13/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-029

Investigator(s): Jimmy Enland / Bryan Munro Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 1%

Subregion (LRR or MLRA): LRR-L Lat: 43.140264 Long: -78.635384 Datum: NAD '83

Soil Map Unit Name: CfA- Churchville silt loam, 0 to 2 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No ___	Is the Sampled Area within a Wetland? Yes X No ___
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes X No ___	If yes, optional Wetland Site ID: VL-010

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

PEM, Wetland 010

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 two required)

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

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): -

Water Table Present? Yes ___ No X Depth (inches): -

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): -

Wetland Hydrology Present? Yes X No ___

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP-029

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Apocynum cannabinum	30%	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	30% = Total Cover		
Herb Stratum (Plot size: 5')			
1. Phragmites australis	60%	Y	FACW
2. Lythrum salicaria	40%	Y	OBL
3. Melilotus officinalis	40%	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	140% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: DP-024

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
0-12	10yr 3/2	70	7.5yr 4/6	30	C	M	L C	
12-20	10yr 3/2	60	7.5yr 4/6	25				
			5yr 5/8	15	C	M	L C	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/13/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-036

Investigator(s): Jimmy Eckard Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): convex Slope (%): 2%

Subregion (LRR or MLRA): LRR-L Lat: 43.140466 Long: -78.635397 Datum: NAD '83

Soil Map Unit Name: CtA- Churchville silt loam, 0 to 2 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland Data Point for Wetland 10

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 two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 030

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Salix lasiolepis	5%	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5% = Total Cover		
Herb Stratum (Plot size: 5')			
1. Phleum pratense	70%	Y	FACU
2. Centaurea stoebe	40%	–	–
3. Daucus carota	30%	Y	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ___ No X

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

Centaurea stoebe does not have an indicator status therefore not included in total percent cover.

SOIL

Sampling Point: DP-030

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10yr 3/2	80	7.5 yr 4/6	20	C	M	Si L	
10-20	10yr 3/2	60	7.5 yr 5/6	20				
			10yr 5/6	20			C L	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes x No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/13/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-031

Investigator(s): Jimmy Eulland / Bryan Moore Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-6

Subregion (LRR or MLRA): LRR-L Lat: 43.140343 Long: -78.638573 Datum: NAD '83

Soil Map Unit Name: CIA - Churchville silt loam, 0 to 3 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology ~ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland data point for Wetland 011

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 two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP-031

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Apocynum cannabinum	10%	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10% = Total Cover		
Herb Stratum (Plot size: 5')			
1. Euthamia graminifolia	70%	X	FAC
2. Poaceae sp.	40%	–	–
3. Rubus allegheniensis	20%	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0% = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: DP- 031

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
0-20	10yr 3/2	100					SL	
~~12-20~~	~~10yr 3/2~~							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/13/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-032

Investigator(s): Jimmy Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 3%

Subregion (LRR or MLRA): LRR-L Lat: 43.140328 Long: -78.638349 Datum: NAD '83

Soil Map Unit Name: CrA - Churchville silt loam, 0 to 2 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes Y	No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes Y	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: WL-011

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

PEM, Wetland 011

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 two required)

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

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): X

Water Table Present? Yes ____ No X Depth (inches): X

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): X

Wetland Hydrology Present? Yes X No ____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 03d

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Phragmites australis	50%	Y	FACW
2. Lythrum salicaria	40%	Y	OBL
3. Melilotus officinalis	15%	N	FACU
4. Eutrochium graminifolium	10%	N	FAC
5. Rubus allegheniensis	10%	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	125% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: DP- 32

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10yr 3/2	100					SL	
6-20	10yr 3/2	60	7.5yr 5/6	40			CSL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/13/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-034

Investigator(s): Jimmy Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): convex Slope (%): 3%

Subregion (LRR or MLRA): LRR-L Lat: 43.140356 Long: -78.624761 Datum: NAD '83

Soil Map Unit Name: Le - Lakemont silty clay loam, 0 to 3 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland Data Point for Wetland 012

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 two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP-034

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Poaceae spp.	60%	-	-
2. Eutamia graminifolia	35%	Y	FAC
3. Elecampane inula	20%	Y	FACU
4. Dipsacus laciniatus	80%	Y	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ___ No X

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

Could not identify Poaceae down to species therefore did not include in total percent cover.

SOIL

Sampling Point: DP-034

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
0-20	10yr 3/1	60	2.5yr 4/6	40			CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ✓ No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/13/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 035

Investigator(s): Jimmy Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR-L Lat: 43.140703 Long: -78.625633 Datum: NAD '83

Soil Map Unit Name: OvA - Ovid silt loam, 0 to 2 percent NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: WL-012

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

Data point for Wetland 012

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 two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes X No ____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP-035

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		

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

Herb Stratum (Plot size: 5')			
1. Typha angustifolia	95%	Y	OBL
2. Lythrum salicaria	15%	N	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL

Sampling Point: DP-035

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
0-11	10YR 3/1	80%	2.5YR 5/8	20%	C	M	CL	
11-20	10YR 3/1	60%	2.5YR 5/8	40%	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/14/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 035

Investigator(s): Jimmy Ireland Section, Township, Range: Town of Royalton

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 1%

Subregion (LRR or MLRA): LRR-L Lat: 43.140343 Long: -78.615388 Datum: NAD '83

Soil Map Unit Name: OvA- Ovid silt loam, 0 to 3 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X No	
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland Site ID: WL-017

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

PEM, Data Point for Wetland 017

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 two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP-038

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Typha angustifolia	95%	Y	OBL
2. Phragmites australis	15%	N	FACW
3. Mentha arvensis	10%	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	120% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL Sampling Point: DP- 035

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	70%	10YR 5/6	15%	C	M	CL	
~~8-20~~	~~10YR 3/2~~		7.5YR 5/8	15%	C	M		
8-20	10YR 3/2	60%	7.5YR 5/8	20%	C	M	C	
			2.5YR 4/6	20%	C	M		

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/17/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 039

Investigator(s): Jimmy Tylund Section, Township, Range: Town of Royalton

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2%

Subregion (LRR or MLRA): LRR-L Lat: 43.140550 Long: -78.617616 Datum: NAD '83

Soil Map Unit Name: OdA - Odessa silty clay loam, 0 to 3 percent slopes NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland Data Point for Wetland 039

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 two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP-039

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		

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

Herb Stratum (Plot size: 5')			
1. Lolium perenne	80%	Y	FACU
2. Dipsacus laciniatus	50%	Y	FACU
3. Daucus carota	20%	N	UPL
4. Asclepias syriaca	10%	N	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	160 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ___ No X

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

SOIL

Sampling Point: DP-039

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
0-11	10yr 4/3	100					SiL	
11-20	10yr 3/2	60	7.5yr 4/4	30				
			2.5y	10	C	M	CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ___ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/14/19

Applicant/Owner: National Grid State: NY Sampling Point: DP-046

Investigator(s): Jimmy Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR or MLRA): LRR-L Lat: 43.140503 Long: -78.622065 Datum: NAD '83

Soil Map Unit Name: OdA- Odessa silty clay loam, 0 to 3 percent slopes NWI classification: Unclassified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

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

Upland for Wetland 014

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 two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP-040

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Lolium perenne	70%	Y	FACU
2. Dipsacus laciniatus	35%	Y	FACU
3. Apocynum cannabinum	30%	Y	FAC
4. Asclepias syriaca	15%	N	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	150% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL Sampling Point: DP-4U

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
0-14	10yr 3/2	90	10yr 5/8	10	C	M	Si L	
14-20	10yr 3/2	50	7.5yr 5/8	30	C	M		
			2.5y 5/3	20	C	M	L C	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ___ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NG Batavia-Lockport Article VII City/County: Niagara Sampling Date: 8/14/19

Applicant/Owner: National Grid State: NY Sampling Point: DP- 041

Investigator(s): Jimmy Ireland Section, Township, Range: Town of Lockport

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 1%

Subregion (LRR or MLRA): LRR-L Lat: 43.140276 Long: -78.622058 Datum: NAD '83

Soil Map Unit Name: OdA - Odessa silty loam, clay loam, 0 to 3 percent slope NWI classification: Not classified

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

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

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes Y	No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: WL-014

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

PEM datapoint of Wetland 014.

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 two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: DP- 041

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	Ø = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	Ø = Total Cover		
Herb Stratum (Plot size: 5')			
1. Lythrum salicaria	50%	Y	OBL
2. Eutamia graminifolia	30%	Y	FAC
3. Bidens aristosa	30%	Y	FACW
4. Juncus effusus	80%	N	OBL
5. Dopsacus laciniatus	10%	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	140% = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	Ø = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ___

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

SOIL Sampling Point: DP-04

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10yr 3/1	80	7.5yr 5/6	20			Si CL	
10-20	10yr 4/1	60	7.5yr 5/8	30	C	M		
	~~10yr 3/1~~		10yr 3/1	10	C	M	L	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

APPENDIX B
WATERCOURSE DATA FORMS - STREAMS

FISHER ASSOCIATES

Stream Data Form

Stream Field ID: Stream 001

Data Point ID: DP-005 Date: 08/06/19 Project #: 190176

Project Name: NO - Batavia - Lockport Article VII

Evaluator(s): Jimmy Ireland

County: Niagara State: NY

Stream Name: Erie Canal - NYS Barge Canal

State Classified: Yes ☐ No ☐ Not Applicable ☐

If Yes, Classification: C

Lat: 43.147784 Long: -78.716194

Hydrologic Characteristics

Flow Regime: Perennial [X] Intermittent ☐ Ephemeral ☐

Surface Water: Present [X] Absent ☐

Perceptible Flow: Present [X] Absent ☐

Water Depth at Thalweg: 15'

Wetted Perimeter Width: 84'

Flow/Gradient Direction: East

Geomorphologic Characteristics

Primary Substrate Class: Unknown

	Width (ft.)		
	at DP	Min	Max
OHWM	84'	84'	100'
Top of Bank	84'	84'	100'

Bank Slope [Reported as % or Horizontal:Vertical(H:V)]:

Left: 85° - 1143%

Right: 85° - 1143%

Bank Stability Summary

Left: Stable - Manmade Banks

Right: Same as above

FISHER ASSOCIATES

Stream Data Form

Data Point ID: DP- 005

Habitat Characteristics

Aquatic Vegetation Present: Yes ☐ No ☒
If Yes, Describe:

Aquatic Organisms Observed: Yes ☐ No ☒
If Yes, Describe:

Terrestrial Organisms Observed: Yes ☐ No ☒
If Yes, Describe:

Riparian Characteristics

Riparian Vegetation Description (0' to 150' from TOB):

Left: Upland 0'-150'- Upland shrubs, Rose & Honeysuckle

Right: Same as above.

Associated Wetland Present: Yes ☐ No ☒
If Yes, ID:

Associated Artificial Drain Present: Yes ☐ No ☒
If Yes, ID:

Jurisdictional Connectivity/Supplemental Comments:

This is a section of the Erie Canal

FISHER ASSOCIATES

Stream Data Form

Stream Field ID: Stream 002
Data Point ID: DP- 018 Date: 8/8/19 Project #: 190176
Project Name: NG Batavia-Lockport Article VII
Evaluator(s): James Ireland
County: Niagara State: New York
Stream Name: Minor tributary to Tonawanda Creek
State Classified: Yes [x] No [ ] Not Applicable [ ]
If Yes, Classification: B
Lat: 43.142082 Long: -78.678408

Hydrologic Characteristics

Flow Regime: Perennial [x] Intermittent [ ] Ephemeral [ ]
Surface Water: Present [x] Absent [ ]
Perceptible Flow: Present [x] Absent [ ]
Water Depth at Thalweg: 36" inches
Wetted Perimeter Width: 20' feet
Flow/Gradient Direction: South

Geomorphologic Characteristics

Primary Substrate Class: S:C

	Width (ft.)		
	at DP	Min	Max
OHWM	20'	3'	22'
Top of Bank	~~22~~	4'	25'

Bank Slope [Reported as % or Horizontal:Vertical(H:V)]:
Left: 50° - 120%
Right: 40° - 84%

Bank Stability Summary

Left: Stable - Vegetated Banks

Right: Same as above

FISHER ASSOCIATES

Stream Data Form

Data Point ID: DP- 018

Habitat Characteristics

Aquatic Vegetation Present: Yes ☐ No ☒
If Yes, Describe:

Aquatic Organisms Observed: Yes ☐ No ☒
If Yes, Describe:

Terrestrial Organisms Observed: Yes ☐ No ☒
If Yes, Describe:

Riparian Characteristics

Riparian Vegetation Description (0' to 150' from TOB):

Left: 0'-150'- ROW - Shrub - Gray dogwood, river grape, Queen Ann's, C. Goldenrod, P. Loosestrife

Right: Same as above

Associated Wetland Present: Yes ☐ No ☒
If Yes, ID:

Associated Artificial Drain Present: Yes ☐ No ☒
If Yes, ID:

Jurisdictional Connectivity/Supplemental Comments:

Flows South off PSL into NWI

FISHER ASSOCIATES

Stream Data Form

Stream Field ID: Stream 003

Data Point ID: DP- 002 Date: 8/12/19 Project #: 190176

Project Name: NG Batavia-Lockport Article VII

Evaluator(s): James Ireland / Bryan Munro

County: Niagara State: New York

Stream Name: Unnamed Tributary to Mud Creek

State Classified: Yes [ ] No [X] Not Applicable [ ]

If Yes, Classification: N/A

Lat: 43.141896 Long: -78.665761

Hydrologic Characteristics

Flow Regime: Perennial [ ] Intermittent [X] Ephemeral [ ]

Surface Water: Present [ ] Absent [X]

Perceptible Flow: Present [ ] Absent [X]

Water Depth at Thalweg: 0" inches

Wetted Perimeter Width: 0' feet

Flow/Gradient Direction: West / South

Geomorphologic Characteristics

Primary Substrate Class: S:L

	Width (ft.)		
	at DP	Min	Max
OHWM	4	2	4
Top of Bank	6	3	6

Bank Slope [Reported as % or Horizontal:Vertical(H:V)]:

Left: 40° - 84%

Right: 35° - 70%

Bank Stability Summary

Left: Stable - Vegetated Banks

Right: Same as above

FISHER ASSOCIATES

Stream Data Form

Data Point ID: DP- 022

Habitat Characteristics

Aquatic Vegetation Present: Yes [ ] No [X]
If Yes, Describe:

Aquatic Organisms Observed: Yes [ ] No [X]
If Yes, Describe:

Terrestrial Organisms Observed: Yes [ ] No [X]
If Yes, Describe:

Riparian Characteristics

Riparian Vegetation Description (0' to 150' from TOB):

Left: 0'-150' - Residential Yard.

Right: 0'-150' - Upland / deciduous forest

Associated Wetland Present: Yes [ ] No [X]
If Yes, ID:

Associated Artificial Drain Present: Yes [X] No [ ]
If Yes, ID: AD-015

Jurisdictional Connectivity/Supplemental Comments:

Flows South off of ROC into residential area

FISHER ASSOCIATES

Stream Data Form

Stream Field ID: **Stream** 004

Data Point ID: DP- 023 Date: 8/12/19 Project #: 190176

Project Name: NG Batavia-Lockport Article VII

Evaluator(s): James Ireland

County: Niagara County State: New York

Stream Name: Unnamed Tributary to Mud Creek

State Classified: Yes [ ] No [X] Not Applicable [ ]

If Yes, Classification: N/A

Lat: 43.141015 Long: -78.649941

Hydrologic Characteristics

Flow Regime: Perennial [X] Intermittent [ ] Ephemeral [ ]

Surface Water: Present [Y] Absent [ ]

Perceptible Flow: Present [X] Absent [ ]

Water Depth at Thalweg: 24" inches

Wetted Perimeter Width: 6' feet

Flow/Gradient Direction: South

Geomorphologic Characteristics

Primary Substrate Class: S:L

	Width (ft.)		
	at DP	Min	Max
OHWM	6'	6'	9'
Top of Bank	11'	10'	15'

Bank Slope [Reported as % or Horizontal:Vertical(H:V)]:

Left: 50° - 120%

Right: 55° - 143%

Bank Stability Summary

Left: Stable - Vegetated Banks

Right: Same as above