WETLAND DETERMINATION REPORT

NFTA BUFFALO-AMHERST-TONAWANDA CORRIDOR TRANSIT EXPANSION PROJECT
ERIE COUNTY, NEW YORK

PREPARED FOR:

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FOR SUBMISSION TO:

NIAGARA FRONTIER TRANSPORTATION AUTHORITY
METROPOLITAN TRANSPORTATION CENTER
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PREPARED BY:

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April 14, 2023
Updated May 8, 2024

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D – Qualifications

I. Introduction

This report describes the waterway and wetland resources at five principal areas located along an approximate 7-mile length of the proposed Buffalo-Amherst-Tonawanda Corridor Transit Expansion (the Project) between Niagara Falls Boulevard at the intersection with Treadwell Road to just north of the I-990 interchange: (1) the Bizer Creek area, (2) the Ellicott Creek area, (3) the John James Audubon Parkway corridor, (4) the Niagara Falls Boulevard area near Maple Road and Alberta Drive, and (5) Maple Road near the intersection with Sweet Home Road. Other portions of the Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project are proposed to be constructed within the densely developed transportation corridors identified by the remainder of Niagara Falls Boulevard, Sheridan Drive, and Sweet Home Road. This wetland determination was conducted in the Fall of 2021, Summer of 2022, and Fall of 2023, in support of this Project sponsored by the Niagara Frontier Transportation Authority.

A. Project Description

The Project is an extension of the existing Metro Rail Light Rail Transit (LRT) from its current terminus at University Station on the University at Buffalo (UB) South Campus, for an additional 7 miles through the UB North Campus and ending a short distance north of Interstate 990 (I-990). Though the Locally Preferred Alternative for the Project is for the extension to run on an additional 7 miles of light-rail transit, the environmental impact statement (EIS) also considers the effects of a Bus Rapid Transit (BRT) Alternative. The Transit Expansion Project would include 10 new stations, two park and ride facilities, and a light maintenance and storage yard for the trains located north of the I-990 interchange with John James Audubon Parkway. The Project is in the City of Buffalo and the towns of Amherst and Tonawanda in Erie County.

Bizer Creek Site: A new bridge would be required at the proposed crossing of Bizer Creek south of Rensch Road. The creek is relatively straight, and its banks and bed are armored with concrete in the area where the alignment would cross.

Ellicott Creek Site: The proposed alignment would cross Ellicott Creek, utilizing the existing piers and bridge that supported the John James Audubon Parkway northbound lanes (now used for a pedestrian/bicycle trail crossing).

John James Audubon Parkway Site: The proposed alignment north of Ellicott Creek mostly corresponds to the northbound lane of John James Audubon Parkway. However, the alignment would deviate from the paved surface near Gordon R. Yaeger Drive for approximately 780 feet, where it would possibly intersect with two wetlands (JJA W-3, JJA W-4) in front of the Amherst Public Library. This is also where a station is proposed. The proposed alignment will have the potential to impact wetlands for about 500 linear feet, as well as require the extension of the culvert that currently crosses John James Audubon Parkway in the vicinity of Wetland JJA W-4.

Niagara Falls Boulevard Site: The Niagara Falls Boulevard site includes: (1) Niagara Falls Boulevard from about 200 feet north of Treadwell Road to the intersection with Maple Road; (2) Maple Road and the northern end of the Boulevard Mall parking lot—up to 75 feet south of Maple Road—from Niagara Falls Boulevard to Alberta Drive; and (3) the northern 600 feet of Alberta Drive from Maple Road, south to the southern end of the Wegmans building.

A proposed side platform station will be in the center of Niagara Falls Boulevard about 475 feet north of the intersection with Treadwell Road. Widening of Niagara Falls Boulevard to accommodate the side platform station will impact the water collection basin where Wetland NFB W-2 is located. A small portion of the northern end of the wetland, where water flows from a culvert under the boulevard into the wetland, will be impacted by the widening of the boulevard.

The proposed alignment deviates to the east of Niagara Falls Boulevard about 770 feet south of the intersection with Maple Road. The proposed alignment will cross through the center of the water collection basin where Wetland NFB W-1 is located. The wetland will not be directly impacted, but water flow to the wetland may be affected.

The proposed alignment and associated infrastructure adjacent to Niagara Falls Boulevard north of Wetland NFB W-1 to Maple Road, and adjacent to Maple Road east to Alberta Drive, will not affect any wetlands.

The proposed alignment turns northeast to converge with Maple Road across the northern end of the water collection basin where Wetland NFB W-3 is located, east of and adjacent to Alberta drive. Wetland NFB W-3

will not be directly impacted, but water flow through culverts draining into the wetland may be affected.

Maple Road Site: The Maple Road Site is a narrow strip of land about 590 feet east to west and about 55 feet north to south. This site is west of the intersection of Maple Road and Sweet Home Road, north of Maple Road, and south of the parking lot for Maple Ridge Centre.

The proposed alignment adjacent to the Maple Road Site will be below grade under the current paved roadway. A proposed traction power substation will be in the southwest corner of the Maple Ridge Centre parking lot, adjacent to and north of the eastern end of the Maple Road Site.

Wetland MR W-1 was described and delineated because of the potential for disturbance from construction of the traction power station.

The Project areas are identified and shown on a site location map found in Appendix A.

B. Site Descriptions

Bizer Creek Site: Bizer Creek is classified in the US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) as a R2UBHx habitat (riverine, lower perennial, unconsolidated bottom, permanently flooded, excavated). Stream corridors in the NWI are designated as riverine habitats, which may contain wetlands within their riparian zones. However, Bizer Creek does not have a riparian zone within the Project area. Sloping concrete banks and bottom constrain the creek within a small gorge comprised of bedrock and talus slopes above the concrete stream banks. Bizer Creek is identified as Ditch 5 on the Town of Amherst Open Drainage Map (Appendix A).

The corridor of shrubland with scattered trees along Bizer Creek is about 130-200 feet wide at the proposed alignment crossing. The dominant vegetation is invasive common buckthorn (*Rhamnus cathartica*) and smooth buckthorn (*Frangula alnus*) shrubs, non-native Siberian elm (*Ulmus pumila*), and eastern cottonwood (*Populus deltoides*). Other species include catalpa (*Catalpa* spp.), gray birch (*Betula populifolia*), and riverbank grape (*Vitis riparia*). The shrubland/forest corridor is bordered by mowed lawns planted with sycamore trees (*Platanus occidentalis*) and/or London plane trees (*Platanus x acerifolia*) and other ornamentals.

A solar panel farm is located on the eastern upland area adjacent to Bizer Creek.

Ellicott Creek Site: Ellicott Creek is classified in the NWI as a R2UBH habitat (riverine, lower perennial, unconsolidated bottom, permanently flooded) within the Project area. One small wetland (EC W-1) was identified within the riparian corridor south of the John James Audubon Parkway Bridge and within 50 feet of the southwestern pier for the pedestrian/bicycle trail crossing. Vegetation in the riparian corridor within the proposed Project area consists primarily of forbs.

John James Audubon Parkway Site: The John James Audubon Parkway Site consists mostly of the northbound lane of the highway along with the adjacent area to approximately 50 feet east of the pavement. However, the corridor was widened to about 100 feet east of the Parkway pavement in the area where the proposed alignment will deviate off the pavement from just north of the Buffalo Niagara Association of Realtors Building to just south of the driveway extending to the parking lot for the Town of Amherst Court Building.

Vegetated areas within the Project site consist primarily of mowed fill slopes of the Parkway, mowed ditches, and six identified wetlands. Mowed areas are dominated by unidentified grasses. Vegetation in the wetlands is dominated by of one or more species of broadleaf cattail (*Typha latifolia*), narrowleaf cattail (*Typha angustifolia*), reed canary grass (*Phalaris arundinacea*), and invasive common reed (*Phragmites australis*).

All six wetlands in the John James Audubon Parkway Site are in excavated ditches/drainages that eventually flow into Ellicott Creek. Wetland JJA W-1 is a combination of a palustrine emergent marsh with persistent vegetation (PEM1), and an excavated, upper perennial, permanently flooded, riverine habitat with an unconsolidated bottom (R3UBHx). This wetland is in an excavated channel where water flows north along the east side of the Parkway before flowing west under the Parkway toward Ellicott Creek. This wetland is part of Ditch 8 according to the Town of Amherst Open Drainage Map (Appendix A).

Wetlands JJA W-2, JJA W-3, and JJA W-4 are riverine habitats (R4SBCx; riverine, intermittent streambed, seasonally flooded, excavated) in a drainage that is the outlet of Lake Audubon located in Walton Woods Park. Water flows through Wetlands JJA W-2 and JJA W-3 into Wetland

JJA W-4. Water flows west from Wetland JJA W-4 under The Parkway and empties into Ellicott Creek. These wetlands are part of Ditch 6 according to the Town of Amherst Open Drainage Map (Appendix A).

Wetland JJA W-5 is a palustrine emergent marsh dominated by *Phragmites australis* (PEM5) comprised of three segments of a ditch that drains runoff from the John James Audubon Parkway into Wetland JJA W-4, which drains into Ellicott Creek.

Wetland JJA W-6 is a riverine habitat (R4SBCx; riverine, intermittent streambed, seasonally flooded, excavated) in a ditch that drains runoff from I-990 into Ellicott Creek.

Niagara Falls Boulevard Site: The Niagara Falls Boulevard site includes: (1) Niagara Falls Boulevard from about 200 feet north of Treadwell Road to the intersection with Maple Road; (2) Maple Road and the northern end of the Boulevard Mall parking lot—up to 75 feet south of Maple Road)—from Niagara Falls Boulevard to Alberta Drive; and (3) the northern 600 feet of Alberta Drive from Maple Road, south to the southern end of the Wegmans building.

Vegetated areas within the Project site consist primarily of mowed fill slopes dominated by grass surrounding water collection basins, strips of mown grass along the roads, a small area of mown grass north of the water collection basin where Wetland NFB W-1 is located, scattered individual and groups of ornamental trees, upland vegetation in the bottoms of the two water collection basins adjacent to and east of Niagara Falls Boulevard, and three identified wetlands. Vegetation in the wetlands is dominated by of one or more species of broadleaf cattail, narrowleaf cattail, invasive common reed, and white panicled American-aster (*Symphyotrichum lanceolatum*).

All three wetlands are in excavated water collection basins. Wetlands NFB W-1 and NFB W-3 are emergent wetland marshes with persistent vegetation (PEM1) and Wetland NFB W-2 is an emergent wetland marsh dominated by common reed (PEM5).

Maple Road Site: The Maple Road Site is a narrow strip of land about 590 feet east to west and about 55 feet north to south. This site is adjacent to, and northwest of, the intersection of Maple Road and Sweet Home Road, and south of the parking lot for Maple Ridge Centre.

Vegetation in the Maple Road Site consists of mowed grass around a drainage ditch where Wetland MR W-1 is located. Vegetation in Wetland MR W-1 is dominated by fall panic grass (*Panicum dichotomiflorum*) and bird-eye pearlwort (*Sagina procumbens*).

II. Wetland Determination Scope and Methodology

A preliminary screening, including a site visit, was conducted to identify existing relevant information, and to become familiar with the five Project sites. Background information from various agency websites was collected and synthesized to identify areas likely to contain potential wetlands within and adjacent to the proposed alignment. Sources included the U.S. Geological Survey (USGS) topographic maps, the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (ERM), the USFWS NWI, the U.S. Department of Agriculture (USDA) Web Soil Survey, and Google Earth satellite images. Copies of relevant agency mapping are in Appendix A.

USGS topographic features, NYSDEC wetland and stream mapping, NWI wetland habitat polygons, hydric soil map units, and saturated areas apparent on satellite images were reviewed before completing the wetland determination. Potential wetland areas were identified using these agency resources.

The areas reviewed during the formal wetland determination is depicted on the maps found in Appendices A and B.

A. Regulated Waterways

The Project area is within the Ellicott Creek watershed, which drains in a westerly direction to the Niagara River. Surface waters within the study area drain through local streams and drainages and discharge to Ellicott Creek which, in turn, discharges to Tonawanda Creek and then the Niagara River (Federal navigable water). Ellicott Creek drains an area of 120 square miles, Tonawanda Creek drains an area of 644 square miles, and the Niagara River drains much of the Great Lakes (an area of 264,000 square miles). The Ellicott Creek watershed is generally, characterized by disturbances associated with roadway, commercial, industrial, and residential development.

Bizer Creek Site: Bizer Creek is a NYSDEC Class C (Standard C) stream. The best usage of a Class C stream is for supporting fisheries and for suitable non-contact activities. Bizer Creek is classified in the USFWS NWI as a R2UBHx habitat, meaning it is an excavated, perennial, low gradient, riverine habitat with an unconsolidated bottom. However, the creek in this area flows through a concrete-line channel. Bizer Creek has a drainage area of approximately six square miles upstream of the proposed alignment.

Within the Project limits, Bizer Creek is a perennial stream that flows northward within a relatively straight channel with concrete-armored banks and bed where the proposed alignment would cross approximately 350-435 feet south of the Rensch Road Bridge. Bizer Creek was realigned in the late 1960s to allow for the construction of the University at Buffalo North Campus. The current outlet of Bizer Creek into Ellicott Creek is about 0.83 miles northwest of its outlet into Ellicott Creek before it was realigned.

Bizer Creek flows through a small gorge within the Project site. The walls of the gorge are 20-30-foot-high cliffs and talus slopes comprised of Camillus shale, which is a gray shale containing a large amount of gypsum.

Access to Bizer Creek near the location where the proposed alignment would cross the creek was hazardous due to bedrock cliffs, talus slopes, and dense vegetation. Therefore, the following characteristics of Bizer Creek were obtained within 60 feet south of the Rensch Road Bridge. The water column of Bizer Creek was 16.5 feet wide and 1.4 feet deep on July 20, 2021. The stream channel width from concrete wall to concrete wall at water level was 19.0 feet. The channel width at the top of the concrete walls is 26.2 feet (the concrete walls slope outward). The stream bed is comprised of cobbles and rocks originating from the adjacent talus slopes. The slope of the stream bed is about 1.5%. The ordinary high-water mark (OHWM) was 2.9 feet above the creek bottom, as determined from a moss trim line on the concrete channel walls. The channel width at OHWM was estimated to be approximately 23 feet.

Ellicott Creek Site: Ellicott Creek is a NYSDEC Class B (Standard B) stream. The best usage of a Class B stream is for swimming and other contact recreation, but not for drinking water. A Protection of Waters Permit from NYSDEC is required for disturbing—temporarily or permanently—the bed or banks of Class B streams. Ellicott Creek and its tributaries are Section 303(d)-listed impaired waters for aquatic life (i.e., fish, shellfish, and wildlife

protection and propagation), fish consumption, public bathing, recreation, shellfishing, and water supply. Ellicott Creek is classified in the USFWS NWI as a R2UBH habitat (riverine, low gradient, unconsolidated bottom, perennial). The Ellicott Creek drainage basin upstream of the point where the proposed alignment crosses is approximately 91 mi^2 in size.

Ellicott Creek flows northwest through the proposed alignment at the John James Audubon Parkway Bridge crossing located between Frontier Road and North Forest Road. Ellicott Creek was realigned (straightened) in this area when the John James Audubon Parkway bridge was built in 1983. This segment of Ellicott Creek is not listed as a U.S. navigable waterway. However, Ellicott Creek is a state-regulated navigable water within the Project site.

Ellicott Creek within the Project site is a perennial stream that flows northwest in a straight, single channel. The slope of the water column is about 1.5%. The channel width at ordinary high water is estimated to be about 118 feet upstream from the John James Audubon Parkway Bridge and 115 feet downstream from the bridge. The OHWM is 8.3 feet below a joint on the northeast side of the northeast bridge pier for the pedestrian/bike trail, and 2.0 feet from the creek bottom at the same location.

The vegetation and soil have been significantly disturbed in the vicinity of the Parkway Bridge due to bridge construction and/or maintenance.

John James Audubon Parkway Site: There are no agency-identified regulated waterways within the John James Audubon Parkway Site.

Niagara Falls Boulevard Site: There are no agency-identified regulated waterways within the Niagara Falls Boulevard Site.

Maple Road Site: There are no agency-identified regulated waterways within the Maple Road Site.

B. Federally Defined Wetlands

The wetland determination was conducted in the field by staff from Watts Architects & Engineers, including Robert Ott, Ph.D., Senior Ecologist; Michael Gerber, Environmental Scientist; Morgan George, Ecologist; and Rachele Anthony, Environmental Scientist. Lisa Connors, Environmental

Scientist, of Watts Architects & Engineers assisted with the preparation of the wetland determination report. Mr. Ott, Mr. Gerber, and Ms. Connors have extensive experience conducting wetland determinations, including bridge crossing and linear transportation projects. Mr. Ott, Mrs. George, Ms. Anthony, and Ms. Connors are formally trained in the U.S. Army Corps of Engineers (USACE) method of conducting wetland delineations. Mr. Ott has 32 years of experience in ecology and forest biology, including working in wetlands. Mrs. George has 6 years of experience in ecology, including wetland determinations and habitat assessments. Ms. Anthony has about two years of experience in environmental science, including wetland determinations and habitat assessments. Their qualifications are in Appendix D.

Wetland determinations were based on the interpretation of the presence of hydrophytic vegetation, hydric soils, and indicators of wetland hydrology as outlined in the USACE 1987 Wetlands Delineation Manual, and the 2012 Northcentral and Northeast Region, Regional Supplement to the Corps of Engineers Wetlands Delineation Manual. The Routine On-Site Inspection Methodology as set forth in the manuals was employed.

The presence of wetlands at the Bizer Creek Site and the Ellicott Creek Site was determined on July 20, 2021. The presence of wetlands at the John James Audubon Parkway Site was determined on September 10, 15, and 16, 2021. The presence of wetlands at the Niagara Falls Boulevard Site was determined on August 3, 2022. The presence of wetlands at the Maple Road Site was determined on October 11, 2023.

Wetland determinations were conducted where vegetation was dominated by hydrophytic plants with a wetland indicator status of obligate wetland species (OBL), facultative wetland species (FACW), or facultative species (FAC). A wetland determination plot was measured within each unique wetland, which was based upon the dominant plant species. For each wetland, an accompanying sample plot was measured in an adjacent upland area. A wetland determination form was completed for each wetland and upland plot, summarizing observations of hydrologic, vegetative, and hydric soil indicators. The abundance of invasive plant species was also recorded for each wetland and upland plot and the surrounding area. Plants were identified as being invasive if they are listed in the document titled, "*New York State Prohibited and Regulated Invasive Plants*."

Each plot location at the Ellicott Creek Site, the John James Audubon Parkway Site, and the Niagara Falls Boulevard Site was marked with a pink pin flag that was labeled with the plot number. The location of each sample plot was determined using a hand-held GPS at the Ellicott Creek Site and the John James Audubon Parkway Site. The locations of sample plots at the Niagara Falls Boulevard Site and the Maple Road Site were determined using a Trimble GPS. No wetlands were identified at the Bizer Creek Site. Wetland boundaries were marked in the field with pink wetland delineation pin flags at all but the Maple Road Site. Watts survey personnel later returned to the Ellicott Creek Site and the John James Audubon Parkway Sites and used a Trimble GPS to record the locations of pin flags (plot locations and wetland boundaries). The locations of pin flags at the Niagara Falls Boulevard Site were recorded at the time the wetlands were delineated using a Trimble GPS. The location of the wetland boundary at the Maple Road Site was recorded at the time the wetland was sampled using a Trimble GPS, but without installing pin flags first. Photographs were taken in the vicinity of each sample plot.

Maps showing pin flag locations/wetland boundary points, and depicting wetland boundaries, were generated from the GPS data. The size of each wetland was calculated from the GPS data and maps.

Wetland boundaries, wetland locations, and the locations of wetland determination plots, are shown in the figures found in Appendix B. Wetland Determination Data Forms and representative photographs are presented in Appendix C.

Bizer Creek Site: The Bizer Creek Site in the vicinity of where the proposed alignment is anticipated to cross the creek is comprised of bedrock cliffs, talus slopes, and a concrete-constrained creek bed and banks. Therefore, it was determined no wetlands were present, so no wetland determination plots were measured. Vegetation at the site was assessed on both sides of the creek, and photos were taken, beginning at the Rensch Road Bridge, and ending about 700 feet south of the bridge.

Ellicott Creek Site: The presence of wetlands was assessed both upstream and downstream of the John James Audubon Parkway Bridge (including the pedestrian/bicycle crossing). This assessment was conducted within 50 feet of the bridge on both the southwest and northeast banks of Ellicott creek, in the north, east, south, and west directions relative to the center of the bridge. One wetland (EC W-1) was identified south of the John James Audubon Parkway Bridge, so a wetland determination plot

and associated upland determination plot were sampled.

Wetlands were not present north, east, and west of the bridge. Hydrophytic vegetation dominated the bank of Ellicott Creek both north and east of the bridge, so wetland determination plots were measured in both locations. The investigation determined that these areas were not wetlands because hydric soil and indicators of wetland hydrology were not identified. The bank of Ellicott Creek west of the bridge was dominated by facultative upland (FACU) vegetation, not hydrophytic species, so a wetland determination plot was not measured.

John James Audubon Parkway Site: Six wetlands (JJA W-1 through JJA W-6) were identified within the John James Audubon Parkway Site. Another area consisting of a small stormwater collection basin (i.e., roadside ditch) at the base of the fill slope on the south side of the I-990 overpass over the John James Audubon Parkway was also examined as a potential wetland. Common reed (FACW) dominated the vegetation in the ditch and on the adjacent fill slope. However, it was determined that this area should not be considered a wetland, and only retains water for short periods of time after a heavy rain.

Niagara Falls Boulevard Site: Three wetlands (NFB W-1 through NFB W-3) were identified in water collection basins within the Niagara Falls Boulevard Site.

Maple Road Site: One wetland (MR W-1) was identified in the drainage ditch within the Maple Road Site.

C. State Wetlands

New York State protects wetlands under Article 24 of the Environmental Conservation Law, also known as the Freshwater Wetlands Act. Under Article 24, wetlands that are ≥12.4 acres in size, or are locally important, and a 100-foot upland buffer surrounding the wetland, are protected. These areas are depicted on state wetlands maps and the boundaries are accurate to ±500 feet. According to the NYSDEC Environmental Resource Mapper and affiliated reference information, there are no mapped State wetlands within the vicinity of the Project limits as reviewed. However, a large State wetland (TE-23) exists to the north of the I-990 and has recently been delineated by a consultant in support of another project. Therefore, a NYSDEC Article 24 freshwater wetland permit will not be required in support of Project construction work as

identified by the limits of this Project. Should the Project limits expand, future permitting requirements will have to be re-examined to meet these changes.

III. Field Determination Results and Wetland Descriptions

Wetlands at each site were identified and delineated within the approximate boundaries of the Project site. Wetland boundaries, wetland locations, and the locations of wetland determination plots, are shown in the figures found in Appendix B. Wetland Determination Data Forms and representative photographs are presented in Appendix C.

A. Bizer Creek Site

The Bizer Creek Site in the vicinity of where the proposed alignment would cross the creek is comprised of bedrock cliffs, talus slopes, and a concrete-constrained creek bed and banks. Therefore, it was determined no wetlands were present, so no wetland determination plots were measured.

B. Ellicott Creek Site

Wetland EC W-1: Wetland EC W-1 is located along a narrow strip of the bank adjacent to Ellicott Creek, south of the John James Audubon Parkway Bridge and pedestrian/bicycle trail crossing. It is in the southwest quadrant. The wetland is a palustrine emergent marsh with persistent vegetation (PEM1; not depicted in the NWI) based on the FGDC Wetland Classification Standard. The wetland area is 159 ft^2 (0.004 acre).

Vegetation in Wetland EC W-1 is dominated by hydrophytic spotted lady's-thumb (*Persicaria maculosa*) (FAC, 50% cover) and spotted trumpetweed (*Eutrochium maculatum*) (OBL, 30% cover).

Soil in Wetland EC W-1 (upper 23 inches) is clayey silt and has a redox dark surface (hydric soil indicator: F6) with 10% redox concentrations in the matrix.

Indicators of wetland hydrology consisted of saturated soil nine inches below the soil surface.

Wetland EC W-1 provides some wetland function because it is

immediately adjacent to Ellicott Creek. The primary function is sediment retention. However, the function of this wetland to the ecological condition of Ellicott Creek in the immediate area, and to the overall health of the watershed, is limited due to its small size.

No Wetlands are present along the banks of Ellicott Creek east, west, and north of the John James Audubon Parkway Bridge.

Table 1
Summary of Wetland Characteristics in the Ellicott Creek Site
Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project

Wetland ID	Total (federal) wetland in Project impact area		Description	Associated resources (NWI, NYSDEC, Soils)	Wetland functions
	Square feet	Acre			
EC W-1	159	0.004	• Riparian Zone (creek bank) • Wet forbland (spotted lady's-thumb; spotted trumpetweed)	• NWI: PEM1 (not mapped) • Mapped soils: Cosad loamy fine sand (non-hydric)	Sediment retention

C. John James Audubon Parkway Site

Wetland JJA W-1: Wetland JJA W-1 is located east of the John James Audubon Parkway, south of Sylvan Parkway, and north of Forest Road. This wetland is in an excavated channel that is the outlet of Muir Lake, a man-made pond located east of John James Audubon Parkway. This wetland is part of Ditch 8 according to the Town of Amherst Open Drainage Map (Appendix A). The distance from the west bank of Wetland JJA W-1 to the edge of the pavement of the John James Audubon Parkway is 18 feet at the north end and 27 feet at the south end. The wetland area is 7,545 ft^2 (0.173 acre).

Wetland JJA W-1 is a combination of a palustrine emergent marsh with persistent vegetation (PEM1; not depicted in the NWI), and an excavated, permanently flooded, upper perennial riverine system with an unconsolidated bottom (R3UBHx; not depicted in the NWI), based on the FGDC Wetland Classification Standard. Water flows north through Wetland JJA W-1, then west through a culvert under the Parkway and eventually into Ellicott Creek. Flowing water through Wetland JJA W-1 has created a definable channel that is dominated by emergent wetland

vegetation. The channel width at the OHWM is 15-18 feet wide. The OHWM is 16 inches above the stream bottom.

Vegetation in Wetland JJA W-1 is dominated by hydrophytic broadleaf cattail (OBL, 60% cover) and narrowleaf cattail (OBL, 30% cover).

Soil in Wetland JJA W-1 (upper 22 inches) is silty clay with a depleted matrix (hydric soil indicator: F3) with 5-8% redox concentrations in the matrix.

Indicators of wetland hydrology consisted of surface water three inches deep.

The primary functions of Wetland JJA W-1 are flood flow alteration, sediment retention, nutrient retention, and wildlife habitat. The functions are limited in their overall contribution to the health of the watershed due to the small size of the wetland. However, this wetland provides functions and contributes to the ecological condition of the stream channel where it is located.

Wetland JJA W-2: Wetland JJA W-2 is located east of the John James Audubon Parkway, at the southwest edge of the lawn of the Buffalo & Erie County Public Library – Audubon Branch. Wetland JJA W-2 is in an excavated channel/ditch that is the outlet of Lake Audubon located in Walton Woods Park east of the Parkway. This wetland is part of Ditch 6 according to the Town of Amherst Open Drainage Map (Appendix A). The distance from the west bank of Wetland JJA W-2 to the edge of the pavement of the John James Audubon Parkway is 56 feet at the north end and 71 feet at the south end. The wetland area within the Project site is 703 ft^2 (0. 016 acre). The wetland extends east beyond the area that was delineated for the Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project.

Wetland JJA W-2 is an excavated, intermittent, riverine habitat with a seasonally flooded streambed (R4SBCx) based on the NWI. Water flows west through Wetland JJA W-2 and north into Wetland JJA W-3, which is in the same channel/ditch. An OHWM was not evident in Wetland JJA W-2.

Vegetation in Wetland JJA W-2 is dominated by hydrophytic species; gray willow (*Salix bebbiana*) (FACW, 5% cover) in the sapling/shrub layer and broadleaf cattail (75% cover) in the herb stratum.

Soil in Wetland JJA W-2 is silty loam from 0-8 inches, and silty clay from 8-20 inches. The soil has a depleted dark surface (hydric soil indicator: F7) with 30% depletions in the matrix from 8-20 inches.

Indicators of wetland hydrology consisted of surface water four inches deep, a high-water table three inches below the soil surface, and saturated soil at the soil surface.

The primary functions of Wetland JJA W-2 are flood flow alteration, sediment retention, nutrient retention, and wildlife habitat. The functions are limited in their overall contribution to the health of the watershed due to the small size of the wetland. However, this wetland provides functions and contributes to the ecological condition of the stream channel where it is located.

Wetland JJA W-3: Wetland JJA W-3 is located east of the John James Audubon Parkway and west of the Buffalo & Erie County Public Library – Audubon Branch. This wetland is in the same excavated channel/ditch as Wetland JJA W-2 that is the outlet of Lake Audubon, located in Walton Woods Park. Wetland JJA W-3 is downstream (north) from Wetland JJA W-2 and is part of Ditch 6 according to the Town of Amherst Open Drainage Map (Appendix A). The distance from the west bank of Wetland JJA W-3 to the edge of the pavement of the John James Audubon Parkway is 72 feet at the north end and 48 feet at the south end. The wetland area is 5,305 ft^2 (0.122 acre).

Wetland JJA W-3 is an excavated, intermittent, riverine habitat with a seasonally flooded streambed (R4SBCx) based on the NWI. Water flows in a northerly direction through Wetland JJA W-3 and into Wetland JJA W-4. An OHWM was not evident in Wetland JJA W-3.

Vegetation in Wetland JJA W-3 is dominated by hydrophytic species; gray willow (20% cover) in the sapling/shrub layer, and broadleaf cattail (80% cover) and reed canary grass (FACW, 75% cover) in the herb stratum. The vegetation along the west side of the wetland (about six feet) near the Parkway is occasionally mowed.

Soil in Wetland JJA W-3 is mucky loam from 0-4 inches, silty sand with clay from 4-13 inches, and clayey silt from 13-22 inches. Redox concentrations from 20%-30% were present from 4-22 inches. The soil is a loamy mucky mineral soil (hydric soil indicator: F1).

Indicators of wetland hydrology consisted of surface water 2-3 inches deep, saturated soil five inches below the soil surface, and oxidized rhizospheres on living roots.

The primary functions of Wetland JJA W-3 are flood flow alteration, sediment retention, nutrient retention, and wildlife habitat. The functions are limited in their overall contribution to the health of the watershed due to the small size of the wetland. However, this wetland provides functions and contributes to the ecological condition of the stream channel where it is located.

Wetland JJA W-4: Wetland JJA W-4 is located east of the John James Audubon Parkway, west of the parking lot for the Town of Amherst Court, and north of Gordon R. Yeager Drive. The wetland is in a water collection basin that drains parking lots and runoff from the fill slopes along the east side of the Parkway, along with collecting water from Wetland JJA W-3 and Wetland JJA W-5. This wetland is part of Ditch 6 according to the Town of Amherst Open Drainage Map (Appendix A). The distance from the west bank of Wetland JJA W-4 to the edge of the pavement of the John James Audubon Parkway is 19 feet. The wetland area within the Project site is 1,679 ft^2 (0.039 acre). The wetland extends east beyond the area that was delineated for the Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project.

Wetland JJA W-4 is an excavated, intermittent, riverine habitat with a seasonally flooded streambed (R4SBCx) based on the NWI. Water from Wetland JJA W-3 flows north about 105 feet through a culvert into Wetland JJA W-4. Water from Wetland JJA W-5 flows south about 1,140 feet through a culvert into Wetland JJA W-4. Water flows west from Wetland JJA W-4 under the John James Audubon Parkway and into Ellicott Creek. An OHWM was not evident in Wetland JJA W-4.

Vegetation in Wetland JJA W-4 is dominated by the invasive hydrophytic species, common reed (100% cover).

Soil in Wetland JJA W-4 is silty clay from 0-20 inches and has a depleted matrix (hydric soil indicator: F3).

Indicators of wetland hydrology consisted of surface water six inches deep.

The primary functions of Wetland JJA W-4 are flood flow alteration,

sediment retention, nutrient retention, and wildlife habitat. The functions are limited in their overall contribution to the health of the watershed due to the small size of the wetland. However, this wetland provides functions and contributes to the ecological condition of the stream channel where it is located.

Wetland JJA W-5: Wetland JJA W-5 is in a roadside ditch east of the John James Audubon Parkway. The wetland is in three sections that are separated by roads with culverts. The southern segment of Wetland JJA W-5 extends about 109 feet south of the southern end of Partridge Run. The middle segment is between the southern and northern ends of Partridge Run (Partridge Run is a loop road). The northern segment of the wetland extends from the northern end of Partridge Run to Dodge Road. The distance from the west bank of Wetland JJA W-5 to the edge of the pavement of the John James Audubon Parkway varies from 8-15 feet. The wetland area within the Project site totals 19,011 ft^2 (0.436 acre), with the southern segment being 1,458 ft^2 (0. 033 acre), the middle segment being 8,002 ft^2 (0.184 acre), and the northern segment being 9,551 ft^2 (0. 219 acre). A small portion of the northern segment of the wetland extends east beyond the area that was delineated for the Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project.

Wetland JJA W-5 is a palustrine wetland dominated by emergent *phragmites australis* (PEM5; not depicted in the NWI) based on the FGDC Wetland Classification Standard. Water flows in a southerly direction through Wetland JJA W-5 and through a culvert into Wetland JJA W-4. An OHWM was not evident in Wetland JJA W-5.

Vegetation in Wetland JJA W-5 is dominated by hydrophytic species; gray willow (5% cover) in the sapling/shrub layer, and invasive common reed (75% cover) and broadleaf cattail (30% cover) in the herb stratum.

Soil in Wetland JJA W-5 is clay loam from 0-3 inches and silty clay from 3-20 inches. The soil is depleted below a dark surface (hydric soil indicator: A11) and has a depleted matrix (hydric soil indicator: F3), with the soil layer from 3-20 inches having 15% redox concentrations and 10% redox depletions within the matrix.

Indicators of wetland hydrology consisted of surface water four inches deep and crayfish burrows.

The primary functions of Wetland JJA W-5 are flood flow alteration,

sediment retention, nutrient retention, and wildlife habitat. The functions are limited in their overall contribution to the health of the watershed due to the small size of the wetland. However, this wetland provides functions and contributes to the ecological condition of the stream channel where it is located.

Wetland JJA W-6: JJA W-6 is in a ditch east of the John James Audubon Parkway at the base of the fill slope of the on-ramp heading east from the Parkway to Interstate 990. The distance from the west end of Wetland JJA W-6 to the edge of the pavement of the Parkway is 24 feet. The wetland area within the Project site is 822 ft^2 (0.019 acre). The wetland extends east beyond the area that was delineated for the Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project.

Wetland JJA W-6 is an excavated, intermittent, riverine habitat with a seasonally flooded streambed (R4SBCx) based on the NWI. Cobbles 6-12 inches in diameter line the ditch. Water flows west through Wetland JJA W-6, flows through a culvert under the John James Audubon Parkway, and continues west along the base of the southern fill slope of the east lane of Interstate 990 to Ellicott Creek. An OHWM was not evident in Wetland JJA W-6.

Vegetation in Wetland JJA W-6 is dominated by the invasive hydrophytic species, common reed (100% cover).

Soil in Wetland JJA W-6 is a mucky clay from 0-10 inches (refusal from rocks at 10 inches) and was classified as a loamy mucky mineral soil (hydric soil indicator: F1).

Indicators of wetland hydrology consisted of surface water one inch deep, a high-water table six inches below the soil surface, and saturated soil at the soil surface.

The primary functions of Wetland JJA W-6 are flood flow alteration, sediment retention, nutrient retention, and wildlife habitat. The functions are limited in their overall contribution to the health of the watershed due to the small size of the wetland. However, this wetland provides functions and contributes to the ecological condition of the stream channel where it is located.

Table 2
Summary of Wetland Characteristics in the John James Audubon Parkway Site
Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project

Wetland ID	Total (federal) wetland in Project impact area		Description	Associated resources (NWI, NYSDEC, Soils)	Wetland functions
	Square feet	Acre			
JJA W-1	7,545	0.173	• Excavated channel/ditch • Marsh (broadleaf cattail; narrowleaf cattail)	• NWI: PEM1/R3UBHx (not mapped) • Mapped soils: Cosad loamy fine sand (non-hydric)	• Flood flow alteration • Sediment retention • Nutrient retention • Wildlife habitat
JJA W-2	703	0.016	• Excavated channel/ditch • Marsh (broadleaf cattail)	• NWI: R4SBCx • Mapped soils: Cosad loamy fine sand (non-hydric)	• Flood flow alteration • Sediment retention • Nutrient retention • Wildlife habitat
JJA W-3	5,305	0.122	• Excavated channel/ditch • Marsh (broadleaf cattail; reed canary grass; gray willow)	• NWI: R4SBCx • Mapped soils: Cosad loamy fine sand (non-hydric) (>90%); Claverick loamy fine sand, 0-3% slopes (non-hydric) (<10%)	• Flood flow alteration • Sediment retention • Nutrient retention • Wildlife habitat
JJA W-4	1,679	0.039	• Excavated water collection basin • Marsh (common reed)	• NWI: R4SBCx • Mapped soils: Cosad loamy fine sand (non-hydric) (about 50%); Claverick loamy fine sand, 0-3% slopes (non-hydric) (about 50%)	• Flood flow alteration • Sediment retention • Nutrient retention • Wildlife habitat

Table 2 Continued
Summary of Wetland Characteristics in the John James Audubon Parkway Site
Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project

Wetland ID	Total (federal) wetland in Project impact area		Description	Associated resources (NWI, NYSDEC, Soils)	Wetland functions
	Square feet	Acres			
JJA W-5	9,551	0.219	• Excavated roadside ditch • Marsh (common reed grass; broadleaf cattail)	• NWI: PEM5 (not mapped) • Mapped soils: Cosad loamy fine sand (non-hydric) (about 2/3); Lakemont silt loam, 0-3% slopes (hydric) (about 1/3)	• Flood flow alteration • Sediment retention • Nutrient retention • Wildlife habitat
JJA W-6	822	0.019	• Excavated ditch/drainage • Marsh (common reed grass)	• NWI: R4SBCx • Mapped soils: Cosad loamy fine sand (non-hydric)	• Flood flow alteration • Sediment retention • Nutrient retention • Wildlife habitat
Total wetland in Project impact area	25,605	0.588			

D. Niagara Falls Boulevard Site

Wetland NFB W-1: Wetland NFB W-1 is adjacent to and east of Niagara Falls Boulevard, south of Maple Road, and west of the Boulevard Mall parking lot. This wetland is in an excavated water collection basin lined with cobbles. The distance from the west side of Wetland NFB W-1 to the edge of the pavement of Niagara Falls Boulevard is 25 feet. The wetland area is 87 ft^2 (0.002 acre).

Wetland NFB W-1 is a palustrine emergent marsh with persistent vegetation (PEM1; not depicted in the NWI), based on the FGDC Wetland Classification Standard. The wetland is adjacent to a short, open water

drainage ditch that flows east into a culvert that goes under the Boulevard Mall parking lot. A small culvert originating from under the mall parking lot is at the southern end of the water collection basin. The destination of the water flowing under the mall parking lot at the north end of the water collection basin is unknown.

Vegetation in Wetland NFB W-1 is dominated by hydrophytic white panicled American-aster (FACW, 90% cover).

Soil in Wetland NFB W-1 (0-9 inches) is mucky loam clay and was classified as a loamy mucky mineral soil (hydric soil indicator: F3).

Indicators of wetland hydrology consisted of a high-water table four inches below the soil surface, soil saturation three inches below the soil surface, and inundation that is visible on aerial imagery.

The primary functions of Wetland NFB W-1 are sediment retention, nutrient retention, and wildlife habitat. The functions are limited in their overall contribution to the health of the watershed due to the small size of the wetland. However, this wetland provides functions and contributes to the ecological condition of the area where it is located.

Wetland NFB W-2: Wetland NFB W-2 is adjacent to and east of Niagara Falls Boulevard, south of Maple Road, and west of the Boulevard Mall parking lot. This wetland is in a ditch within an excavated water collection basin lined with cobbles. About 65% of the water collection basin (northern portion) is mowed. The ditch where Wetland NFB W-2 is located connects a culvert under Niagara Falls Boulevard at the north end of the water collection basin to a culvert under the Boulevard Mall parking lot at the south end of the water collection basin. The distance from the west side of Wetland NFB W-2 to the edge of the pavement of Niagara Falls Boulevard is about 25 feet at the north end, about 40 feet in the center, and about 104 feet at the south end. The wetland area is 1,475 ft^2 (0.034 acre).

Wetland NFB W-2 is a palustrine emergent marsh with persistent vegetation dominated by *Phragmites australis* (PEM5; not depicted in the NWI), based on the FGDC Wetland Classification Standard. Water that flows through Wetland NFB W-2 originates from the culvert under Niagara Falls Boulevard (west of the wetland), flows south through NFB W-2, and then flows east again as it enters the culvert under the Boulevard Mall parking lot. The destination of the water flowing under the mall parking lot

is unknown.

Vegetation in Wetland NFB W-2 is dominated by the invasive hydrophytic species, common reed (90% cover).

Soil in Wetland NFB W-2 is problematic because the ditch and surrounding upland area is lined with cobbles. Therefore, a soil pit was not dug, and the wetland determination was based upon the presence of hydrophytic vegetation and indicators of wetland hydrology.

Indicators of wetland hydrology consisted of the presence of surface water three inches deep.

The primary functions of Wetland NFB W-2 are flood flow alteration, sediment retention, nutrient retention, and wildlife habitat. The functions are limited in their overall contribution to the health of the watershed due to the small size of the wetland. However, this wetland provides functions and contributes to the ecological condition of the area where it is located.

Wetland NFB W-3: Wetland NFB W-3 is adjacent to and east of Alberta Drive, south of Maple Road, and west of the Olive Garden restaurant and Wegmans grocery store. This wetland is in two excavated water collection basins connected by a culvert under an unnamed road. The distance from the west side of Wetland NFB W-3 to the edge of the pavement of Alberta drive is about 40 feet for both sections of the wetland. The total wetland area is 14,795 ft^2 (0.340 acre), with the northern section being 2,938 ft^2 (0.067 acre) and the southern section being 11,857 ft^2 (0.272 acre).

Wetland NFB W-3 was a palustrine emergent marsh with persistent vegetation (PEM1; not depicted in the NWI), based on the FGDC Wetland Classification Standard on August 3, 2022. Water that flows through Wetland NFB W-3 originates from several culverts in the northern section of the wetland. Water then flows south through the wetland and exits the wetland through a culvert that carries the water west, under Alberta Drive and under the Boulevard Mall parking lot. The destination of the water flowing under the mall parking lot is unknown.

During the field assessment completed on August 3, 2022, the vegetation in Wetland NFB W-3 was dominated by hydrophytic common reed (50% cover), broadleaf cattail (20% cover), and narrowleaf cattail (20% cover).

It was observed on October 5, 2023, that the wetland vegetation in NFB W-3 had been removed and the water collection basin had been landscaped, seeded, and mulched. The basin had been transformed into a narrow ditch with flowing water.

Before the alterations described above, soil in Wetland NFB W-3 was mucky clayey loam from 0-2 inches, and clay from 2-14 inches. This soil was classified as being a loamy mucky mineral soil (hydric soil indicator: F1), even though the depth of the upper layer modified by muck is less than typically observed.

Before the alterations described above, indicators of wetland hydrology consisted of surface water from 4-7 inches in places, a high-water table 11 inches from the soil surface, soil saturation at the ground surface, inundation that is visible on aerial imagery, water-stained leaves, and oxidized rhizospheres on living roots.

Before the alterations described above, the primary functions of Wetland NFB W-3 were flood flow alteration, sediment retention, nutrient retention, and wildlife habitat. The functions were limited in their overall contribution to the health of the watershed due to the small size of the wetland. However, this wetland provided functions and contributed to the ecological condition of the area where it was located.

Table 3
Summary of Wetland Characteristics in the Niagara Falls Boulevard Site
Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project

Wetland ID	Total (federal) wetland in Project impact area		Description	Associated resources (NWI, NYSDEC, Soils)	Wetland functions
	Square feet	Acre			
NFB W-1	87	0.002	• Excavated water collection basin • Marsh (white panicled American-aster)	• NWI: PEM1(not mapped) • Mapped soils: Urban land (non-hydric)	• Sediment retention • Nutrient retention • Wildlife habitat
NFB W-2	1,475	0.034	• Ditch within an excavated water collection basin • Marsh (common reed)	• NWI: PEM5 (not mapped) • Mapped soils: Urban land (non-hydric)	• Flood flow alteration • Sediment retention • Nutrient retention • Wildlife habitat
NFB W-3	14,795	0.340	• Excavated water collection basin • Marsh (common reed grass, broadleaf cattail, narrowleaf cattail)	• NWI: PEM1 (not mapped) • Mapped soils: Urban land (non-hydric	• Flood flow alteration • Sediment retention • Nutrient retention • Wildlife habitat
Total wetland in Project impact area	16,357	0.376			

E Maple Road Site

Wetland MR W-1: Wetland MR W-1 is in a drainage ditch immediately west of the intersection of Maple Road and Sweet Home Road, and north of Maple Road. The distance from the south side of Wetland MR W-1 to the edge of pavement of Maple Road is about 27 feet. The wetland is in two sections that are separated by a mall driveway with double culverts

under it. The total wetland area is 3,407 ft^2 (0.078 acre), with the east section being 2,300 ft^2 (0.053 acre) and the west section being 1,107 ft^2 (0.025 acre).

Wetland MR W-1 is a palustrine emergent marsh with persistent vegetation (PEM1; not depicted in the NWI), based on the FGDC Wetland Classification Standard. Several culverts originating under the parking lot of Maple Ridge Centre drain into Wetland MR W-1. There is no obvious outflow from this wetland.

Vegetation in Wetland MR W-1 is dominated by hydrophytic fall panic grass (*Panicum dichotomiflorum*) (FACW, 65% cover) and bird-eye pearlwort (*Sagina procumbens*) (FAC, 30% cover). Vegetation in this wetland is mowed.

Soil in Wetland MR W-1 is muck from 0-2 inches, loam from 2-6 inches, and silty clay from 6-17 inches. This soil was classified as being depleted below a dark surface (hydric soil indicator: A11) and as having a depleted matrix (hydric soil indicator: F3).

Indicators of wetland hydrology consisted of surface water one inch deep, a high-water table five inches below the soil surface, soil saturation at the surface, oxidized rhizospheres on living roots, and a FAC-Neutral Test that indicated predominance of hydrophytic vegetation.

The primary functions of Wetland MR W-1 are sediment retention and nutrient retention. The functions are limited in their overall contribution to the health of the watershed due to the small size of the wetland. However, this wetland provides functions and contributes to the ecological condition of the area where it is located.

Table 4
Summary of Wetland Characteristics in the Maple Road Site
Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project

Wetland ID	Total (federal) wetland in Project impact area		Description	Associated resources (NWI, NYSDEC, Soils)	Wetland functions
	Square feet	Acre			
MR W-1	3,407	0.078	• Excavated drainage ditch • Marsh (fall panic grass, bird-eye pearlwort)	• NWI: PEM1 (not mapped) • Mapped soils: Churchville silt loam, 0-3% slopes (non-hydric) (about 30%); Ilion silt loam (hydric) (about 50%); Odessa silt loam, 0-3% slopes (non-hydric) (about 7%); Schoharie silt loam, 0-3% slopes (non-hydric) (about 13%)	• Sediment retention • Nutrient retention

F Invasive Plants

Bizer Creek Site: The abundance of invasive plants is high within the Bizer Creek stream corridor. Invasive plants are dominated by common buckthorn, but smooth buckthorn, and spotted knapweed (*Centaurea stoebe*) are also present.

Ellicott Creek Site: The abundance of invasive plants is low, where they are present at all, along Ellicott Creek in the vicinity of the John James Audubon Parkway Bridge and the pedestrian/bicycle trail. Invasive plants are absent within the proposed alignment east of the pedestrian/bicycle trail and north of Ellicott Creek. The abundance of invasive plants is low within the proposed alignment east of the pedestrian/bicycle trail and south of Ellicott Creek. Invasive plants in this area consist of mugwort (*Artemisia vulgaris*), Japanese knotweed (*Reynoutria japonica*), and Canada thistle. Invasive plants are low in abundance and consist of

Canada thistle west of the Parkway Bridge and south of Ellicott Creek. Invasive plants are absent west of the Parkway Bridge and north of Ellicott Creek.

John James Audubon Parkway Site: The abundance of invasive plants varies from being absent to being high in the identified wetlands east of the John James Audubon Parkway. Invasive plants are absent in Wetland JJA W-5. Invasive plants are present in trace amounts in Wetland JJA W-2 and consist of purple loosetrife (*Lythrum salicaria*). Invasive plants are low in abundance and consist of purple loosestrife in Wetlands JJA W-1 and JJA W-3. Invasive plants are high in abundance in Wetlands JJA W-4 and JJA W-6 and consist mostly of common reed, but purple loosestrife is also present in Wetland JJA W-6.

The abundance of invasive plants varies from being absent to being moderate in the upland areas surrounding the identified wetlands east of the John James Audubon Parkway. Invasive plants are absent adjacent to Wetland JJA W-5. Invasive plants are present in trace amounts adjacent to Wetland JJA W-6 and consist of spotted knapweed. Invasive plants are low in abundance adjacent to Wetlands JJA W-1, JJA W-3, and JJA W-4, and consist of one or more species of common buckthorn, purple loosestrife, Canada thistle, spotted knapweed, mugwort, common reed, multiflora rose (*Rosa multiflora*), and cut-leaf teasel (*Dipsacus laciniatus*). Invasive plants are moderate in abundance adjacent to Wetland JJA W-2 and consist of mugwort, Canada thistle, common buckthorn, and multiflora rose.

Niagara Falls Boulevard Site: The abundance of invasive plants is variable across the Niagara Falls Boulevard Site. Overall, the abundance of invasive plants is low in the water collection basin where Wetland NFB W-1 is located. However, Canada thistle and common reed are abundant near the open water ditch near Wetland NFB W-1. The abundance of mugwort is low near the open water ditch. The abundance of invasive plants is high in the water collection basin where Wetland NFB W-2 is located. The dominant invasive plant is common reed and purple loosestrife is sparse. The abundance of invasive plants is high in the water collection basin where Wetland NFB W-3 is located. The dominant invasive plant is common reed and the abundance of mugwort and purple loosestrife is moderate. The abundance of common buckthorn is low.

Maple Road Site: No invasive plants were observed at the Maple Road Site.

IV. Wetland Impacts and Mitigation

Once the Record of Decision for the Environmental Impact Statement for the Project has been accepted, the impacts of the preferred alternative can be identified in support of this report. The location and size of each impact will be based on the final alignment for the accepted build alternative. Each impact must be quantified by the lead designer in support of the wetland determination report and interpretation of whether wetland mitigation will be required in support of the NYSDEC and USACE permit applications.

V. References

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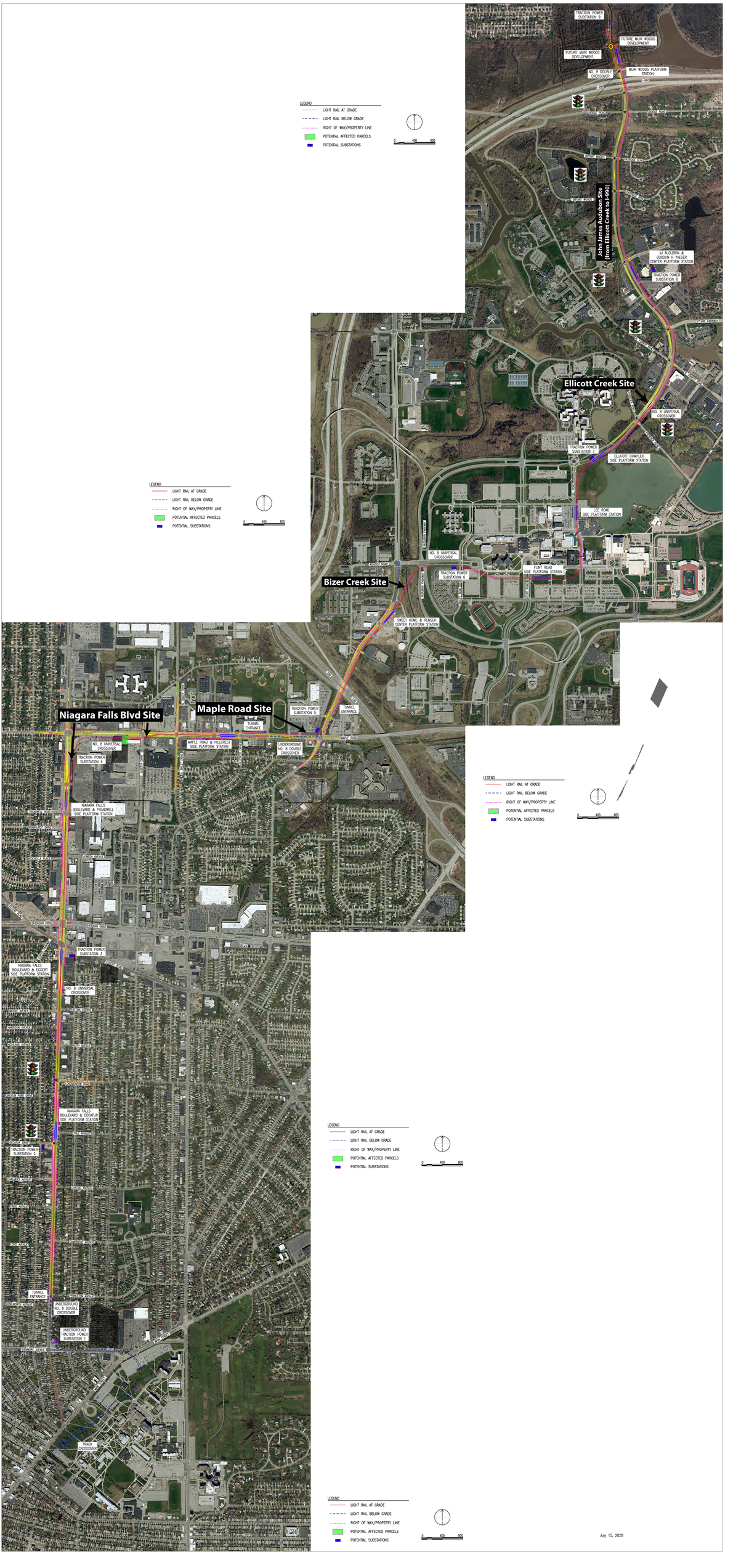
APPENDIX A

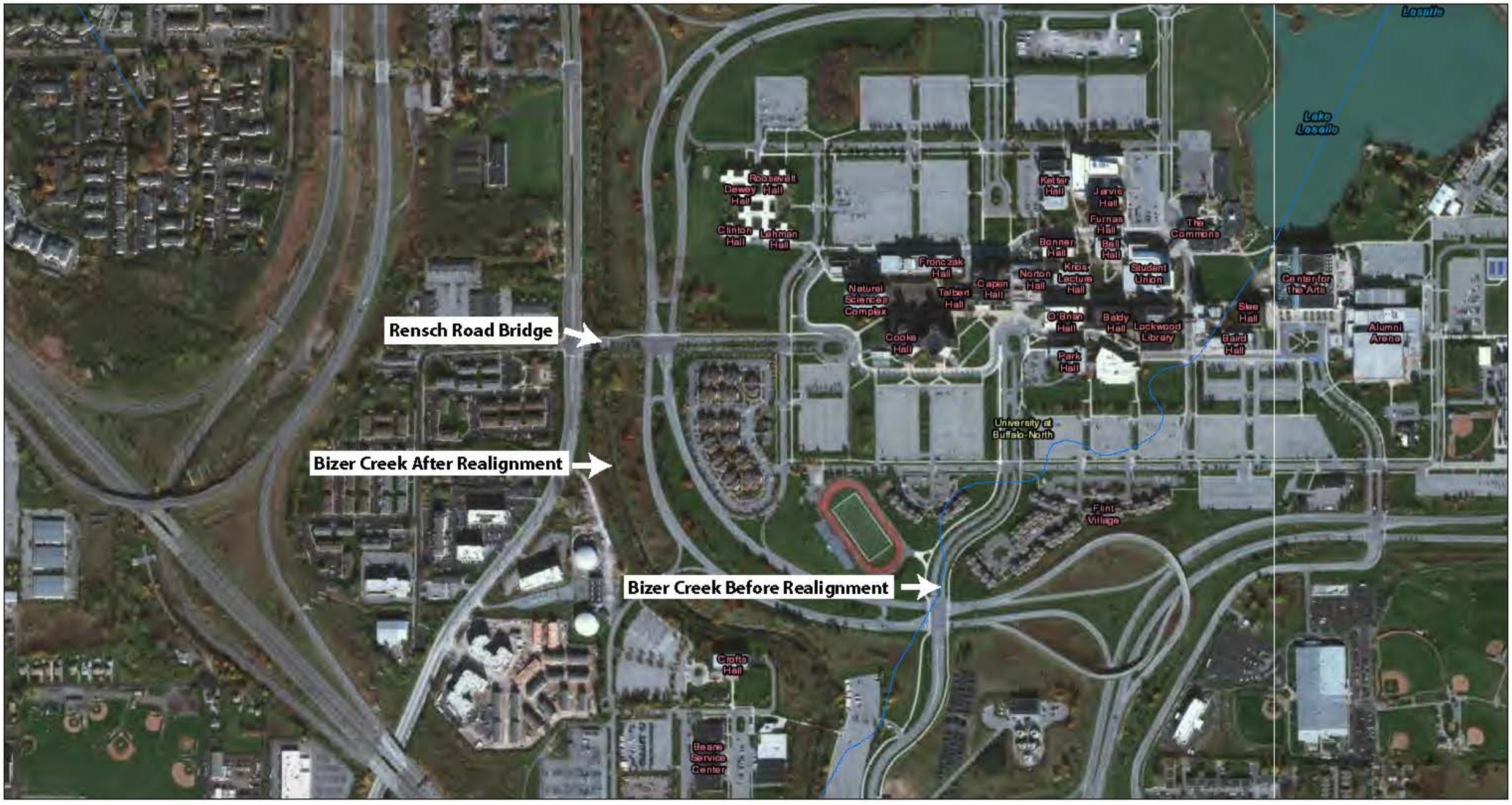
Location and Resource Maps

List of Figures:

- Project location map
- NYSDEC Environmental Resource Mapper—Classified streams and state regulated wetlands (satellite images; 4 maps)
- NYSDEC Environmental Resource Mapper—Classified streams and state regulated wetlands (topographic images; 2 maps)
- National Wetlands Inventory (5 maps)
- Soils (2 maps)
- Hydric soils (2 maps)
- Town of Amherst open drainage map


TRACTION POWER SUBSTATION 9
FUTURE MUIR WOODS DEVELOPMENT
FUTURE MUIR WOODS DEVELOPMENT
NO. 8 DOUBLE CROSSOVER
MUIR WOODS PLATFORM STATION
John James Audubon Site (from Ellicott Creek to I-990)
JJ AUDUBON & GORDON R YAGGER CENTER PLATFORM STATION
TRACTION POWER SUBSTATION 8
Ellicott Creek Site
NO. 8 UNIVERSAL CROSSOVER
TRACTION POWER SUBSTATION 7
ELLICOTT COMPLEX SIDE PLATFORM STATION
LEE ROAD SIDE PLATFORM STATION
NO. 8 UNIVERSAL CROSSOVER
TRACTION POWER SUBSTATION 6
FLINT ROAD SIDE PLATFORM STATION
Bizer Creek Site
SWEET HOME & RENSCH CENTER PLATFORM STATION
Maple Road Site
TRACTION POWER SUBSTATION 5
TUNNEL ENTRANCE
TUNNEL ENTRANCE
UNDERGROUND NO. 8 DOUBLE CROSSOVER
MAPLE ROAD & HILLCREST SIDE PLATFORM STATION
NO. 8 UNIVERSAL CROSSOVER
TRACTION POWER SUBSTATION 4
Niagara Falls Blvd Site
NIAGARA FALLS BOULEVARD & TRADEWELL SIDE PLATFORM STATION
TRACTION POWER SUBSTATION 3
NIAGARA FALLS BOULEVARD & EGGERT SIDE PLATFORM STATION
NO. 8 UNIVERSAL CROSSOVER
NIAGARA FALLS BOULEVARD & DECATUR SIDE PLATFORM STATION
TRACTION POWER SUBSTATION 2
TUNNEL ENTRANCE
UNDERGROUND NO. 8 DOUBLE CROSSOVER
UNDERGROUND TRACTION POWER SUBSTATION 1
TRACK CROSSOVER
LEGEND
LIGHT RAIL AT GRADE
LIGHT RAIL BELOW GRADE
RIGHT OF WAY/PROPERTY LINE
POTENTIAL AFFECTED PARCELS
POTENTIAL SUBSTATIONS
0
400
800
July 15, 2020

New York DEC Classified Streams / State Regulated Wetlands -- Bizer Creek Site



June 2, 2021

1:9,028

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

NYS Department of Environmental Conservation
Not a legal document

New York DEC Classified Streams / State Regulated Wetlands -- John James Audubon Parkway from Ellicott Creek to Audubon Lake

February 5, 2022

1:9,028

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

NYS Department of Environmental Conservation
Not a legal document

New York DEC Classified Streams / State Regulated Wetlands -- John James Audubon Parkway from Audubon Lake to North of I-990

February 5, 2022

1:9,028

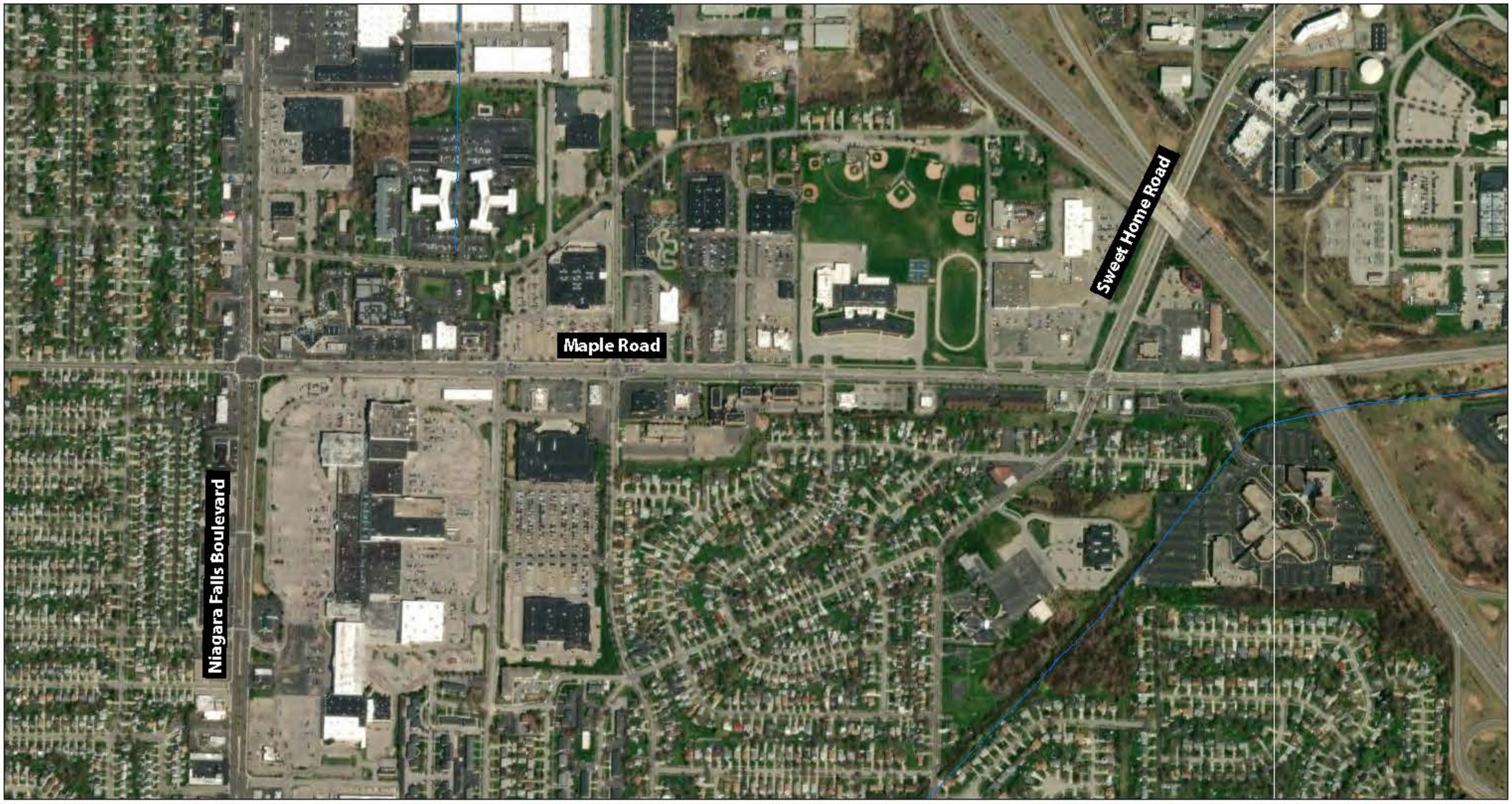
0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

NYS Department of Environmental Conservation
Not a legal document

New York DEC Classified Streams / State Regulated Wetlands in the Vicinity of Niagara Falls Boulevard and Maple Road



November 12, 2023

1:9,028

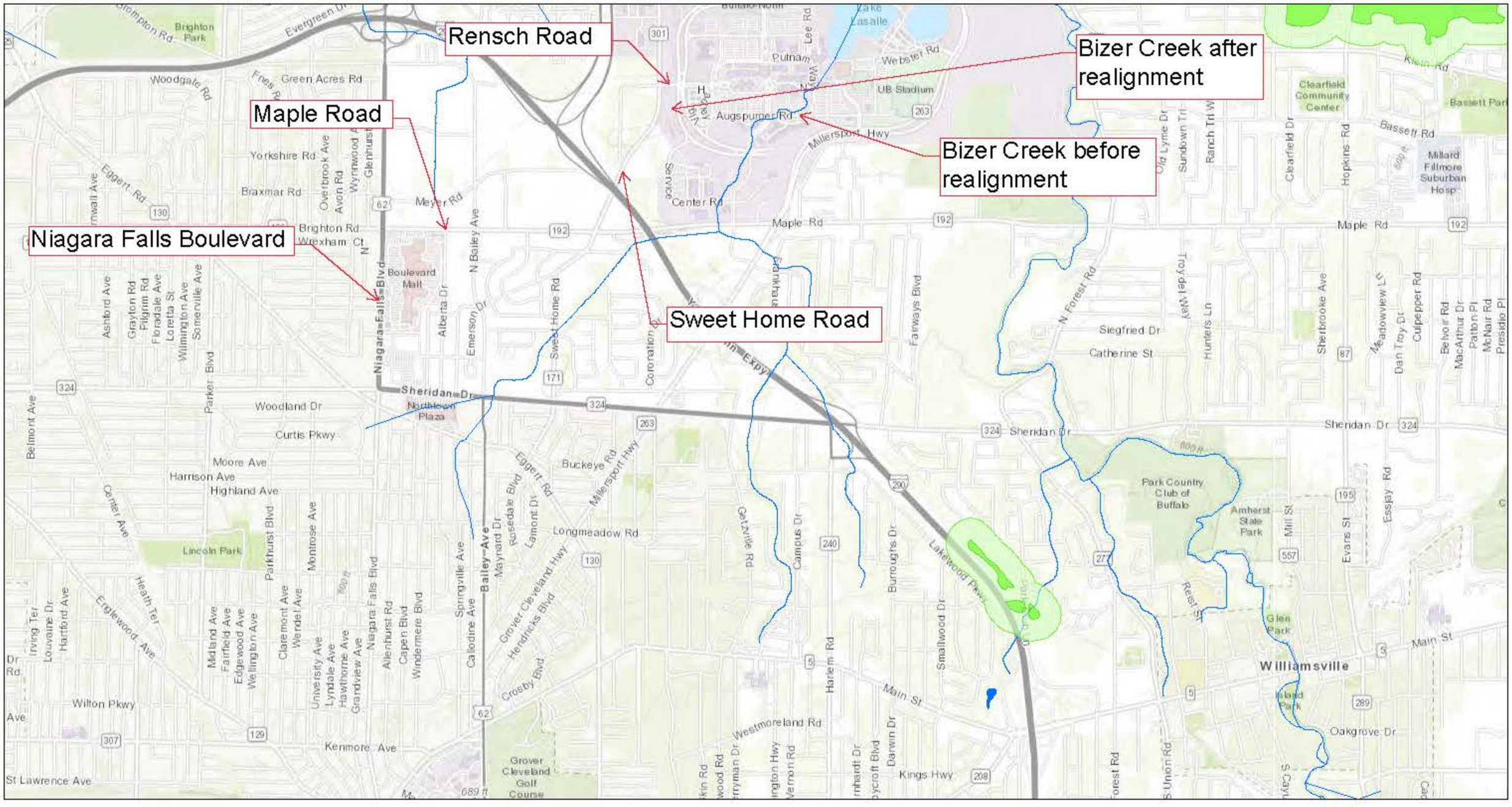
0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

Maxar

NYS Department of Environmental Conservation
Not a legal document

New York DEC Classified Streams / State Regulated Wetlands--South of University at Buffalo North Campus



June 1, 2021

1:36,112

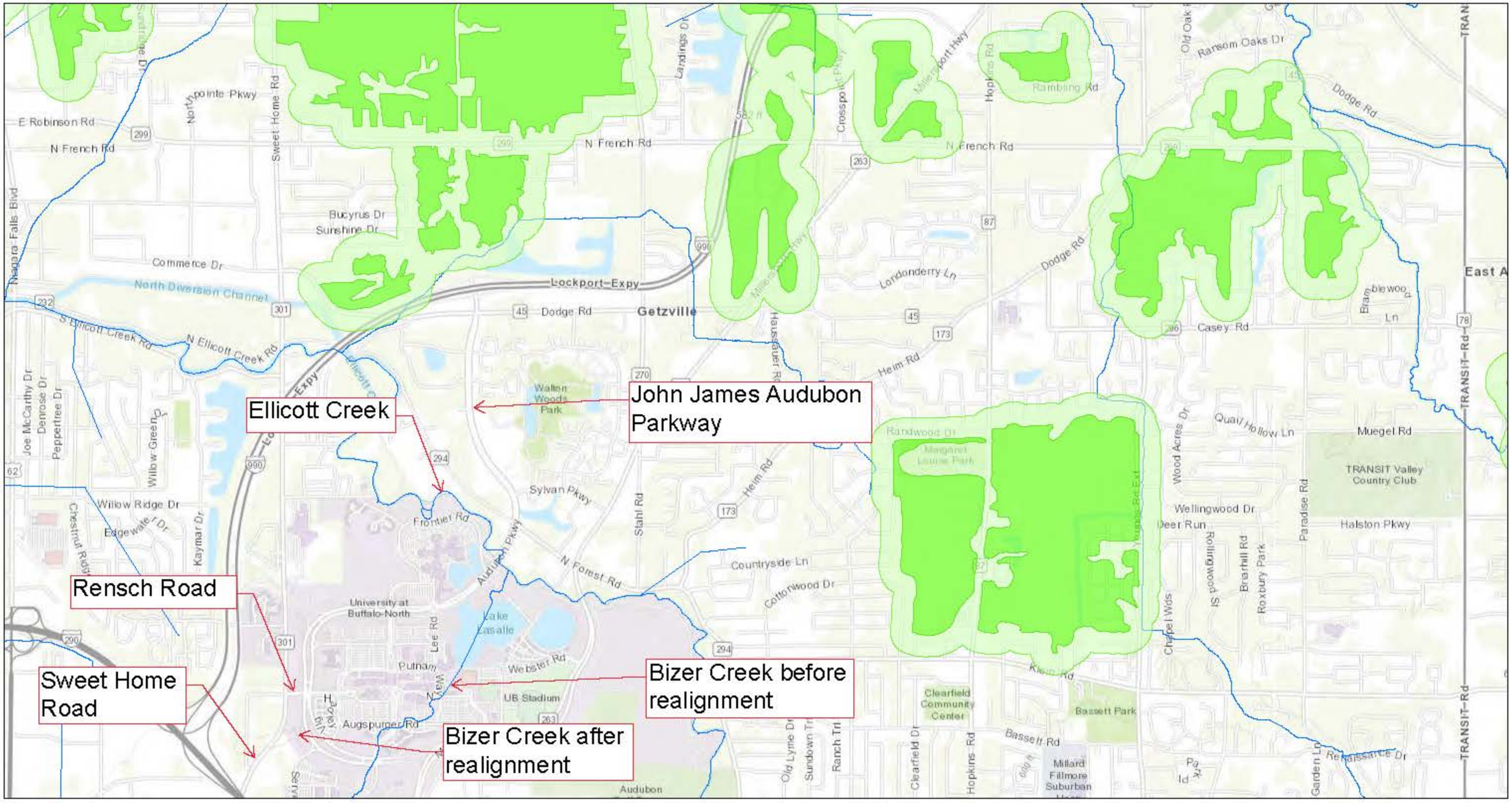
0 0.33 0.65 1.3 mi

0 0.5 1 2 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

NYS Department of Environmental Conservation
Not a legal document

New York DEC Classified Streams / State Regulated Wetlands -- University at Buffalo North Campus and North



June 1, 2021

1:36,112

0 0.33 0.65 1.3 mi

0 0.5 1 2 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

NYS Department of Environmental Conservation
Not a legal document

U.S. Fish and Wildlife Service
National Wetlands Inventory

Bizer Creek and UB North Campus

January 4, 2024

Wetlands

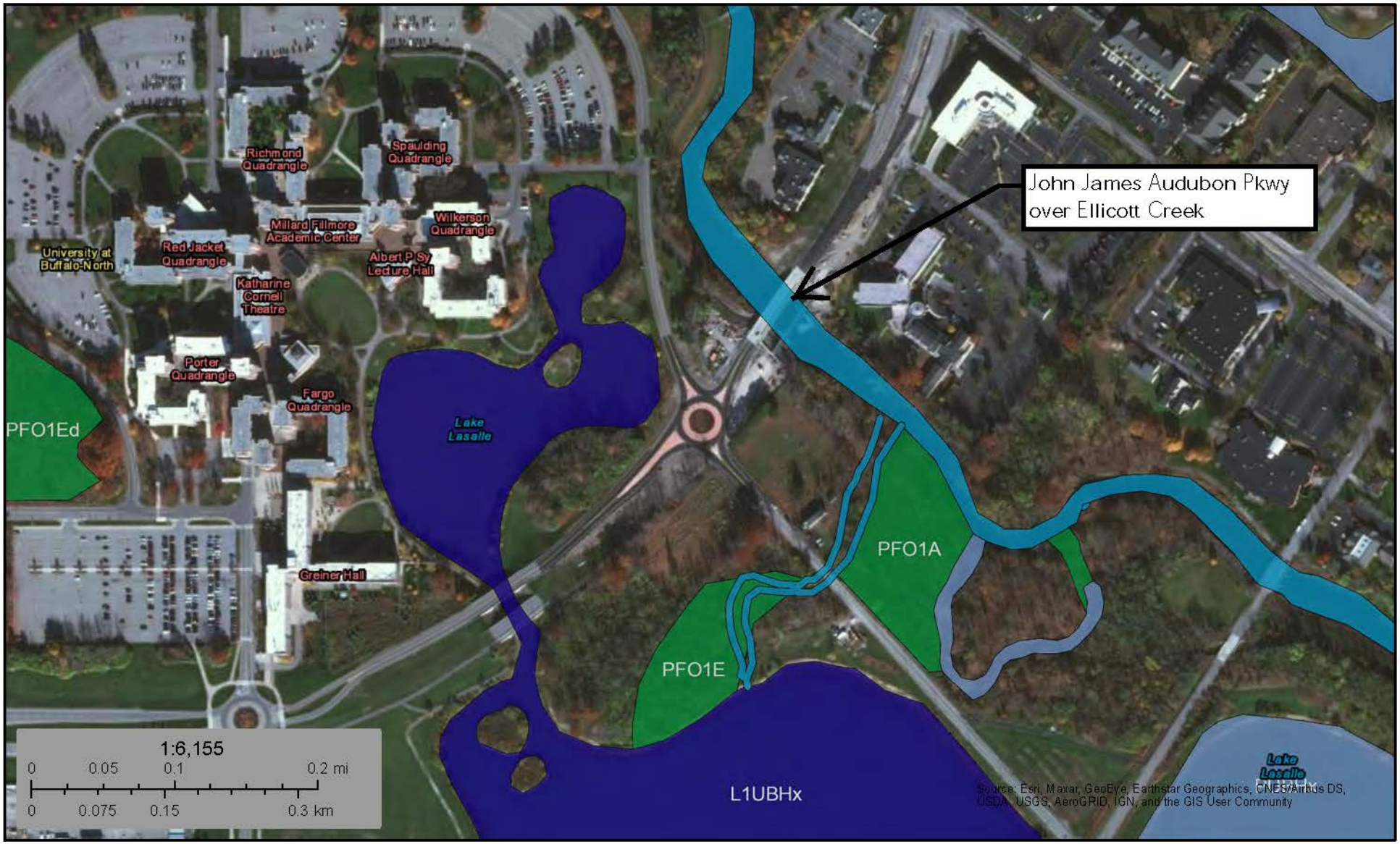
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

U.S. Fish and Wildlife Service

National Wetlands Inventory

Ellicott Creek



June 1, 2021

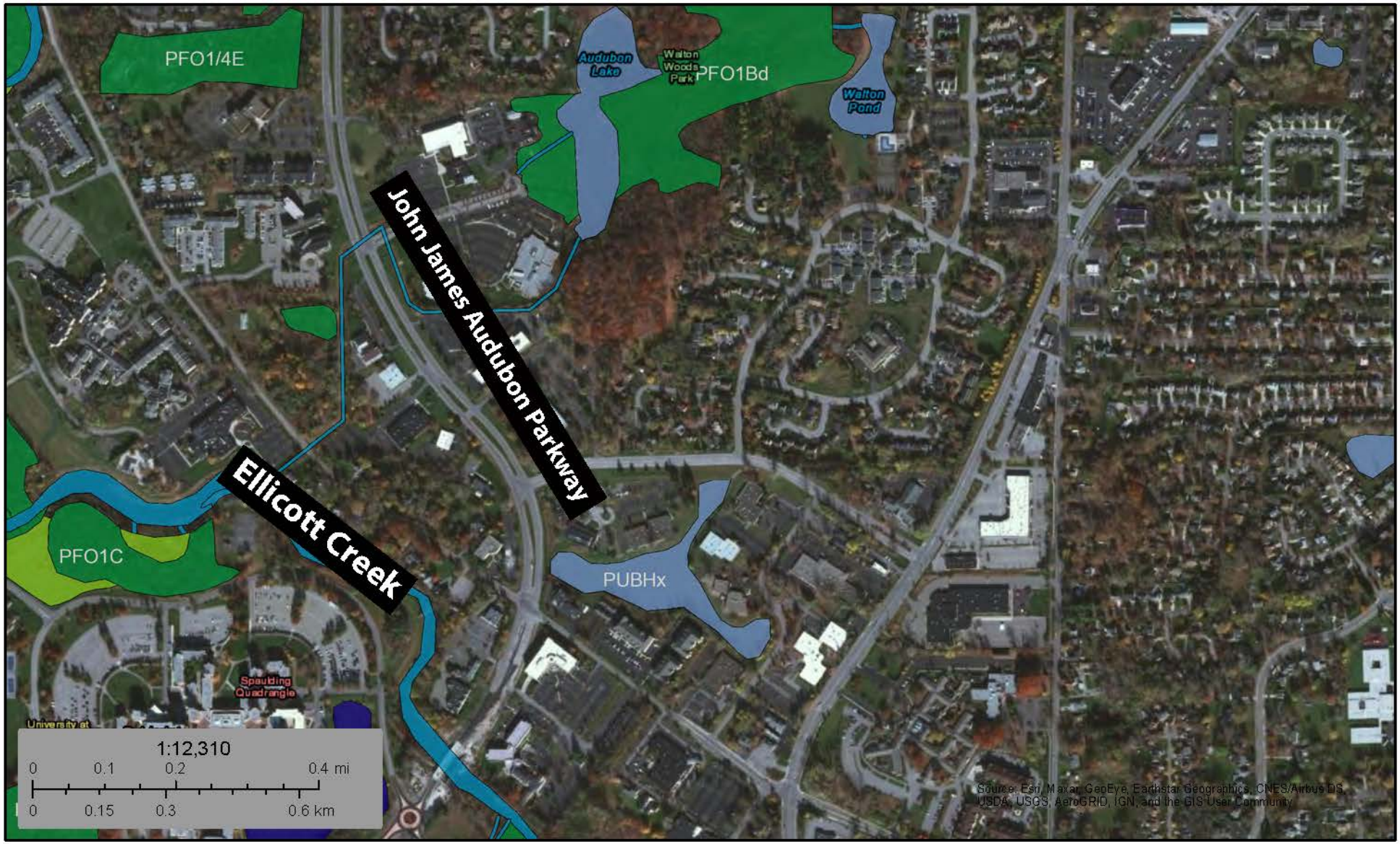
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

U.S. Fish and Wildlife Service

National Wetlands Inventory

John James Audubon Parkway From Ellicott Creek to Audubon Lake



June 1, 2021

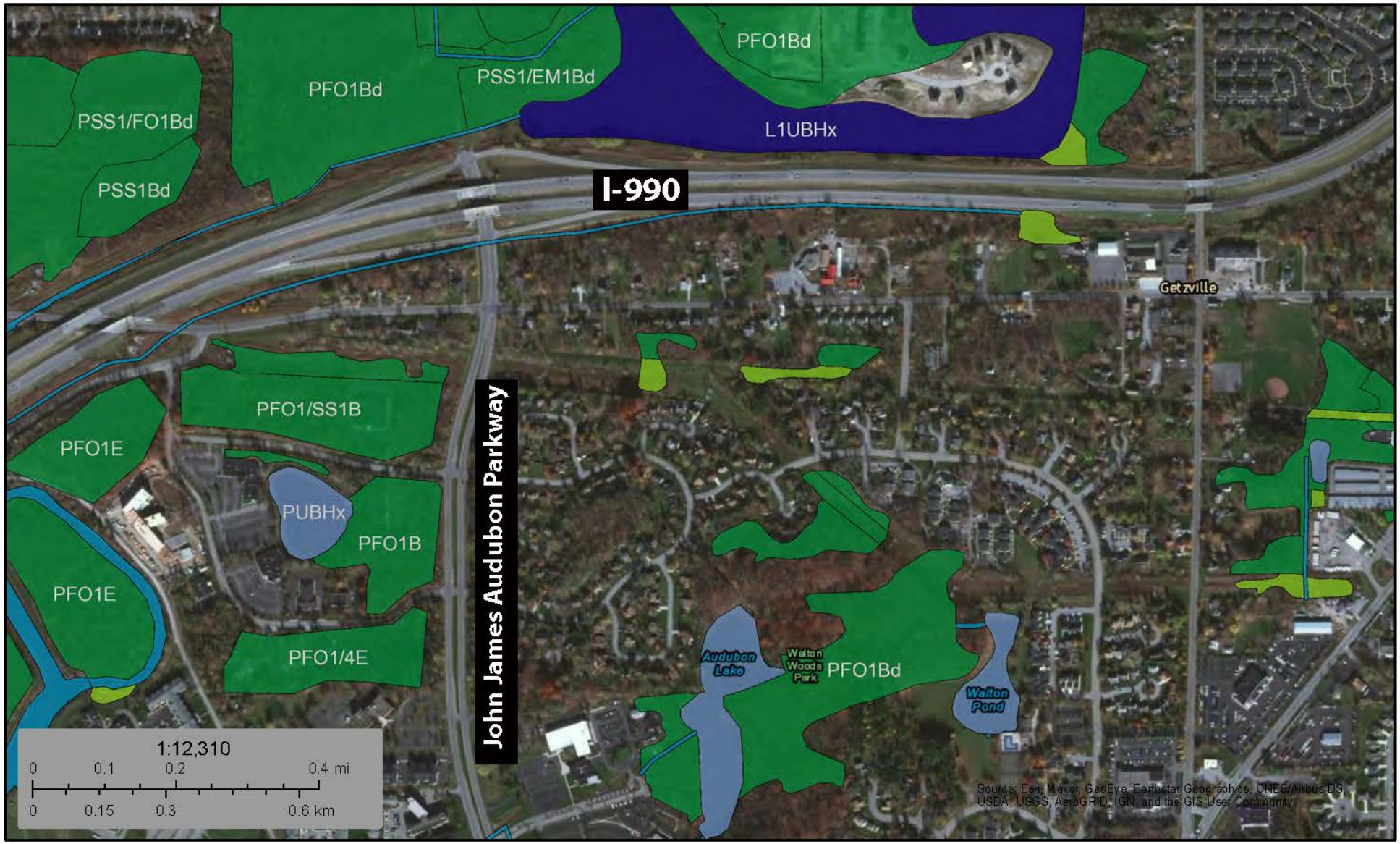
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

U.S. Fish and Wildlife Service

National Wetlands Inventory

John James Audubon Parkway From Audubon Lake to I-990



June 1, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

U.S. Fish and Wildlife Service

National Wetlands Inventory

Vicinity of Niagara Falls Boulevard and Maple Road

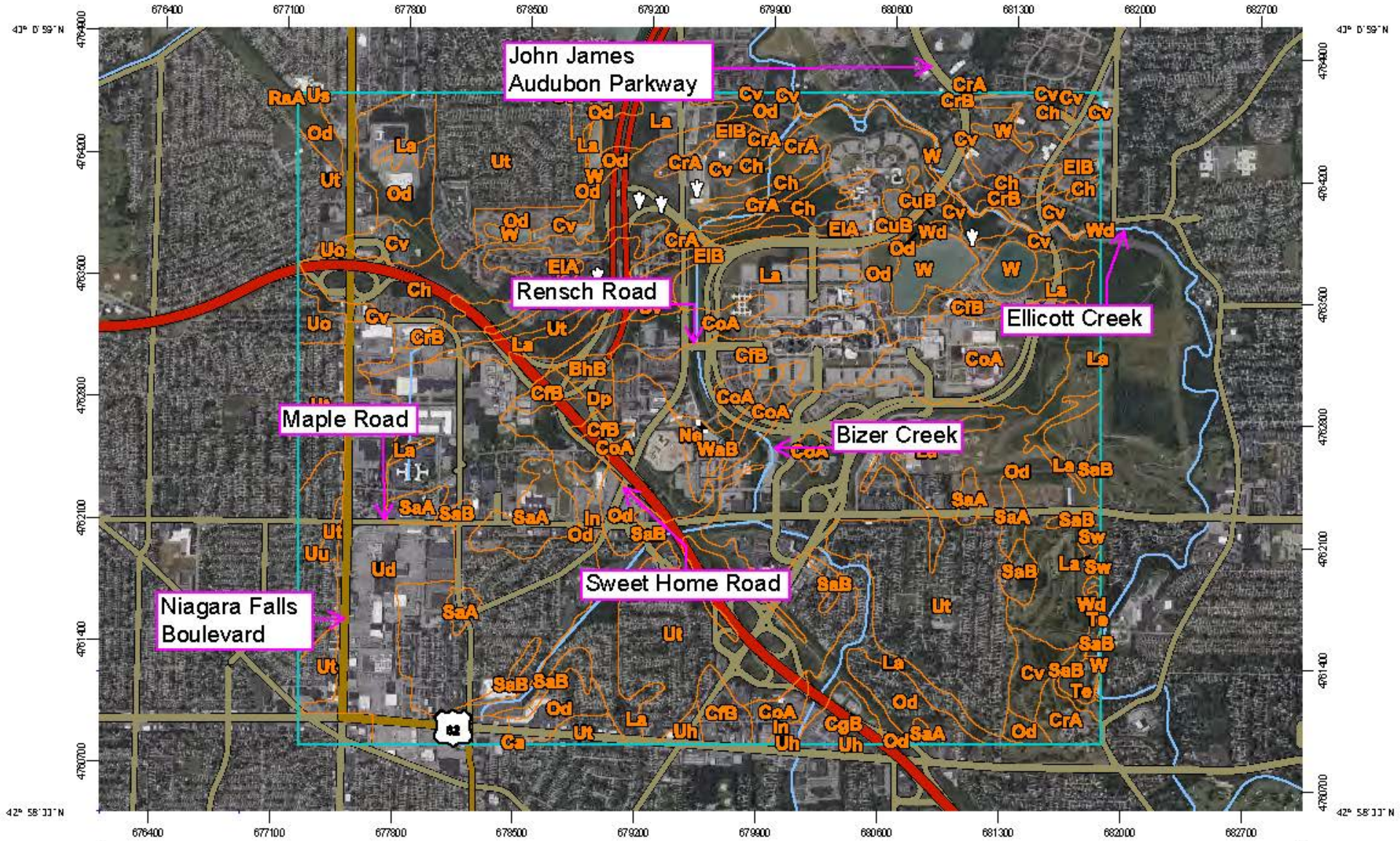
November 7, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Soil Map-Erie County, New York
Buffalo-Amherst-Tonawanda Corridor Transit Expansion
(Central Portion)



Map Scale: 1:31,700 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 450 900 1800 2700

Feet: 0 1500 3000 6000 9000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

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

Special Point Features

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

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

Soil Survey Area: Erie County, New York
Survey Area Data: Version 21, Aug 29, 2021

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

Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BhB	Benson-Rock outcrop complex, 3 to 8 percent slopes	10.2	0.2%
Ca	Canadice silt loam	0.3	0.0%
CfB	Cayuga silt loam, 3 to 8 percent slopes	160.3	3.7%
CgB	Cazenovia silt loam, 3 to 8 percent slopes	26.9	0.6%
Ch	Cheektowaga fine sandy loam	238.8	5.6%
CoA	Churchville silt loam, 0 to 3 percent slopes	362.2	8.4%
CrA	Claverack loamy fine sand, 0 to 3 percent slopes	46.4	1.1%
CrB	Claverack loamy fine sand, 3 to 8 percent slopes	16.1	0.4%
CuB	Colonie loamy fine sand, 3 to 8 percent slopes	6.6	0.2%
Cv	Cosad loamy fine sand	484.4	11.3%
Dp	Dumps	8.7	0.2%
ElA	Elnora loamy fine sand, 0 to 3 percent slopes	6.6	0.2%
ElB	Elnora loamy fine sand, 3 to 8 percent slopes	33.0	0.8%
In	Ilion silt loam	15.2	0.4%
La	Lakemont silt loam, 0 to 3 percent slopes	406.4	9.5%
Ne	Newstead loam	24.2	0.6%
Od	Odessa silt loam, 0 to 3 percent slopes	1,081.5	25.2%
RaA	Raynham silt loam, 0 to 3 percent slopes	1.0	0.0%
SaA	Schoharie silt loam, 0 to 3 percent slopes	89.4	2.1%
SaB	Schoharie silt loam, 3 to 8 percent slopes	68.2	1.6%
Sw	Swormville clay loam	4.3	0.1%
Te	Teel silt loam	11.7	0.3%
Ud	Urban land	236.1	5.5%
Uh	Urban land-Churchville complex	8.3	0.2%
Uo	Urban land-Cosad complex	18.6	0.4%
Us	Urban land-Niagara complex	0.8	0.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ut	Urban land-Odessa complex, 0 to 3 percent slopes	760.2	17.7%
Uu	Urban land-Schoharie complex, 0 to 3 percent slopes	53.8	1.3%
W	Water	97.3	2.3%
WaB	Wassaic silt loam, 3 to 8 percent slopes	8.8	0.2%
Wd	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	5.7	0.1%
Totals for Area of Interest		**4,292.3**	**100.0%**

Soil Map-Erie County, New York
Buffalo-Amherst-Tonawanda Corridor Transit Expansion
(North of UB)

Map Scale: 1:11,800 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 150 300 600 900

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

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

Special Point Features

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

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

Soil Survey Area: Erie County, New York
Survey Area Data: Version 21, Aug 29, 2021

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

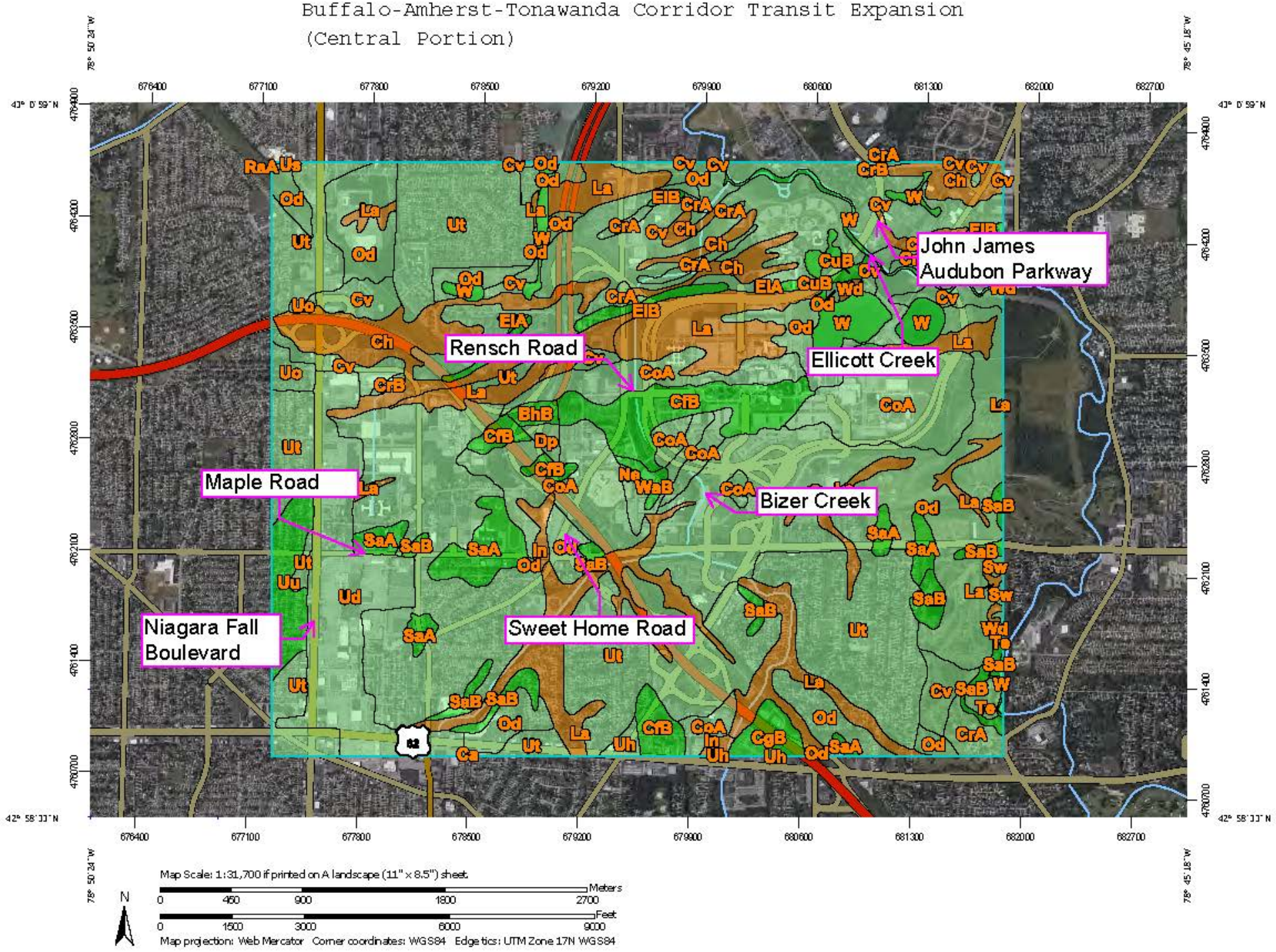
Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ch	Cheektowaga fine sandy loam	2.7	6.2%
CrA	Claverack loamy fine sand, 0 to 3 percent slopes	1.0	2.3%
CrB	Claverack loamy fine sand, 3 to 8 percent slopes	4.4	10.1%
CuB	Colonie loamy fine sand, 3 to 8 percent slopes	0.0	0.1%
Cv	Cosad loamy fine sand	32.2	73.4%
La	Lakemont silt loam, 0 to 3 percent slopes	2.2	5.0%
W	Water	1.3	2.9%
Totals for Area of Interest		**43.9**	**100.0%**

Hydric Rating by Map Unit-Erie County, New York
Buffalo-Amherst-Tonawanda Corridor Transit Expansion
(Central Portion)



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines

- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points

- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

Soil Survey Area: Erie County, New York
Survey Area Data: Version 21, Aug 29, 2021

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

Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

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

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BhB	Benson-Rock outcrop complex, 3 to 8 percent slopes	0	10.2	0.2%
Ca	Canadice silt loam	95	0.3	0.0%
CfB	Cayuga silt loam, 3 to 8 percent slopes	0	160.3	3.7%
CgB	Cazenovia silt loam, 3 to 8 percent slopes	0	26.9	0.6%
Ch	Cheektowaga fine sandy loam	90	238.8	5.6%
CoA	Churchville silt loam, 0 to 3 percent slopes	5	362.2	8.4%
CrA	Claverack loamy fine sand, 0 to 3 percent slopes	5	46.4	1.1%
CrB	Claverack loamy fine sand, 3 to 8 percent slopes	5	16.1	0.4%
CuB	Colonie loamy fine sand, 3 to 8 percent slopes	0	6.6	0.2%
Cv	Cosad loamy fine sand	10	484.4	11.3%
Dp	Dumps	10	8.7	0.2%
ElA	Elnora loamy fine sand, 0 to 3 percent slopes	0	6.6	0.2%
ElB	Elnora loamy fine sand, 3 to 8 percent slopes	0	33.0	0.8%
In	Ilion silt loam	90	15.2	0.4%
La	Lakemont silt loam, 0 to 3 percent slopes	95	406.4	9.5%
Ne	Newstead loam	5	24.2	0.6%
Od	Odessa silt loam, 0 to 3 percent slopes	5	1,081.5	25.2%
RaA	Raynham silt loam, 0 to 3 percent slopes	5	1.0	0.0%
SaA	Schoharie silt loam, 0 to 3 percent slopes	0	89.4	2.1%
SaB	Schoharie silt loam, 3 to 8 percent slopes	0	68.2	1.6%
Sw	Swormville clay loam	10	4.3	0.1%
Te	Teel silt loam	5	11.7	0.3%
Ud	Urban land	5	236.1	5.5%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Uh	Urban land-Churchville complex	2	8.3	0.2%
Uo	Urban land-Cosad complex	2	18.6	0.4%
Us	Urban land-Niagara complex	2	0.8	0.0%
Ut	Urban land-Odessa complex, 0 to 3 percent slopes	5	760.2	17.7%
Uu	Urban land-Schoharie complex, 0 to 3 percent slopes	0	53.8	1.3%
W	Water	0	97.3	2.3%
WaB	Wassaic silt loam, 3 to 8 percent slopes	0	8.8	0.2%
Wd	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	90	5.7	0.1%
Totals for Area of Interest			**4,292.3**	**100.0%**

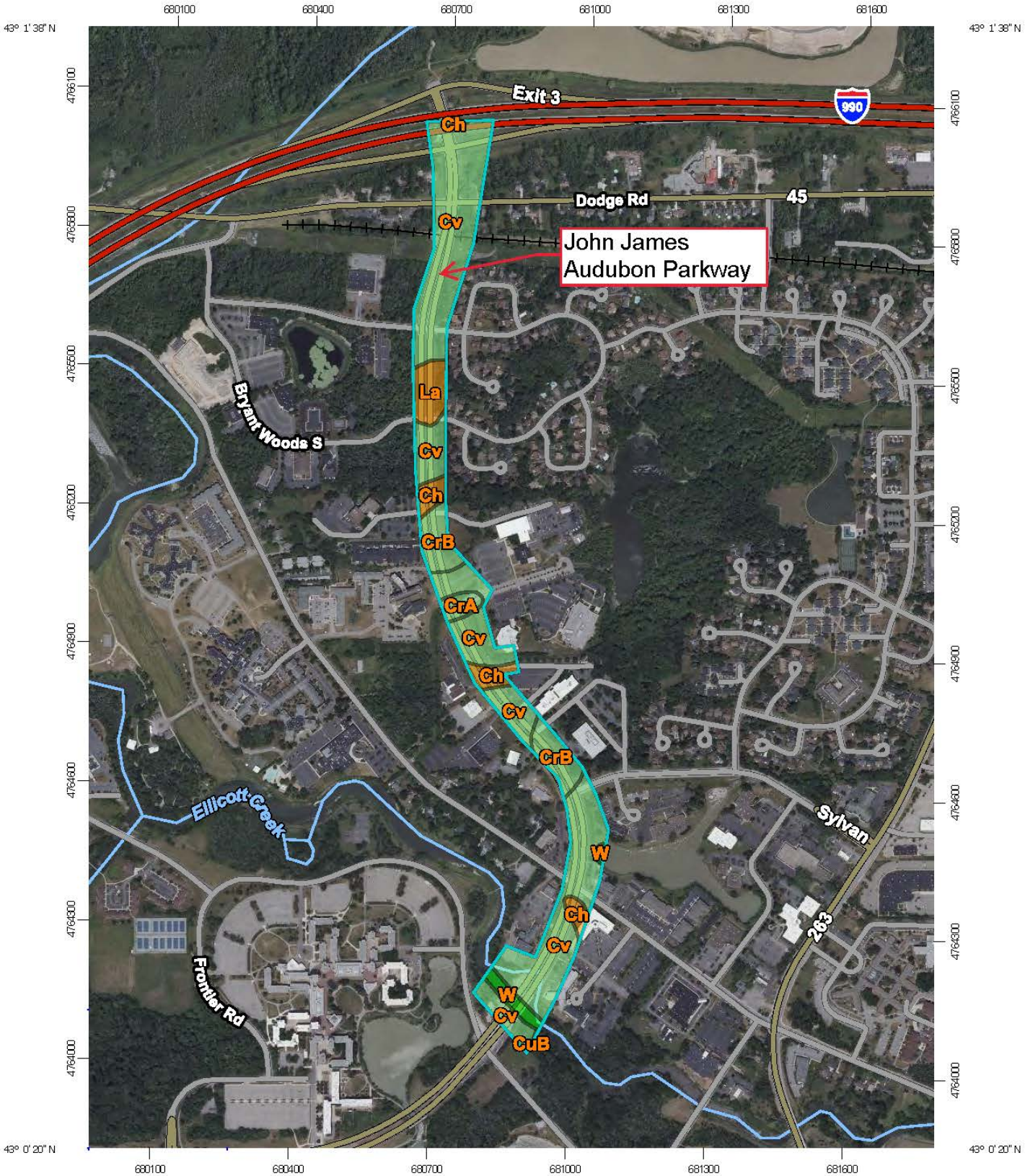
Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Hydric Rating by Map Unit-Erie County, New York
Buffalo-Amherst-Tonawanda Corridor Transit Expansion
(North of UB)



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

Hydric (100%)

Hydric (66 to 99%)

Hydric (33 to 65%)

Hydric (1 to 32%)

Not Hydric (0%)

Not rated or not available

Soil Rating Lines

Hydric (100%)

Hydric (66 to 99%)

Hydric (33 to 65%)

Hydric (1 to 32%)

Not Hydric (0%)

Not rated or not available

Soil Rating Points

Hydric (100%)

Hydric (66 to 99%)

Hydric (33 to 65%)

Hydric (1 to 32%)

Not Hydric (0%)

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

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

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

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

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

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

Soil Survey Area: Erie County, New York
Survey Area Data: Version 21, Aug 29, 2021

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

Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

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

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ch	Cheektowaga fine sandy loam	90	2.7	6.2%
CrA	Claverack loamy fine sand, 0 to 3 percent slopes	5	1.0	2.3%
CrB	Claverack loamy fine sand, 3 to 8 percent slopes	5	4.4	10.1%
CuB	Colonie loamy fine sand, 3 to 8 percent slopes	0	0.0	0.1%
Cv	Cosad loamy fine sand	10	32.2	73.4%
La	Lakemont silt loam, 0 to 3 percent slopes	95	2.2	5.0%
W	Water	0	1.3	2.9%
Totals for Area of Interest			**43.9**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

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

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

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

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

TOWN OF AMHERST

Erie County, New York

OPEN DRAINAGE MAP

1 0.5 0 1 2 Miles

Legend

- Town of Amherst Boundary
- Village of Williamsville
- SUNY at Buffalo - North Campus

Open Drainage:

- Town Ditch Network
- Lakes and Streams

Roads:

- New York State: Highways, Expressways, Interstates
- County Routes
- Town Roads

Areas Discussed in the Buffalo-Amherst-Tonawanda Corridor Transit Expansion Wetland Determination Report

Mapping By: Engineering Department - GIS Division
Mapping Date:September, 2015

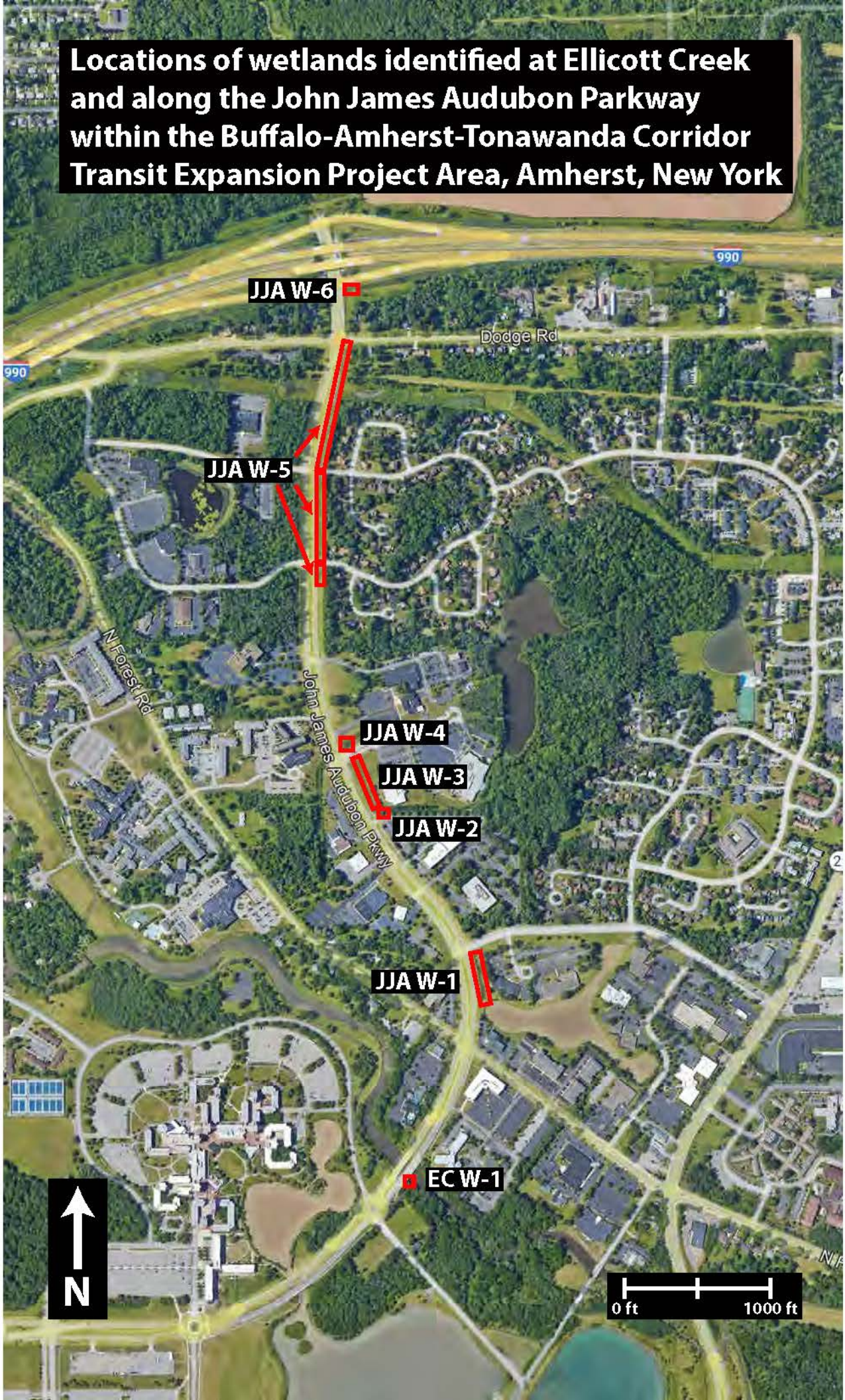
Brian H. Barnes, MS, GISP

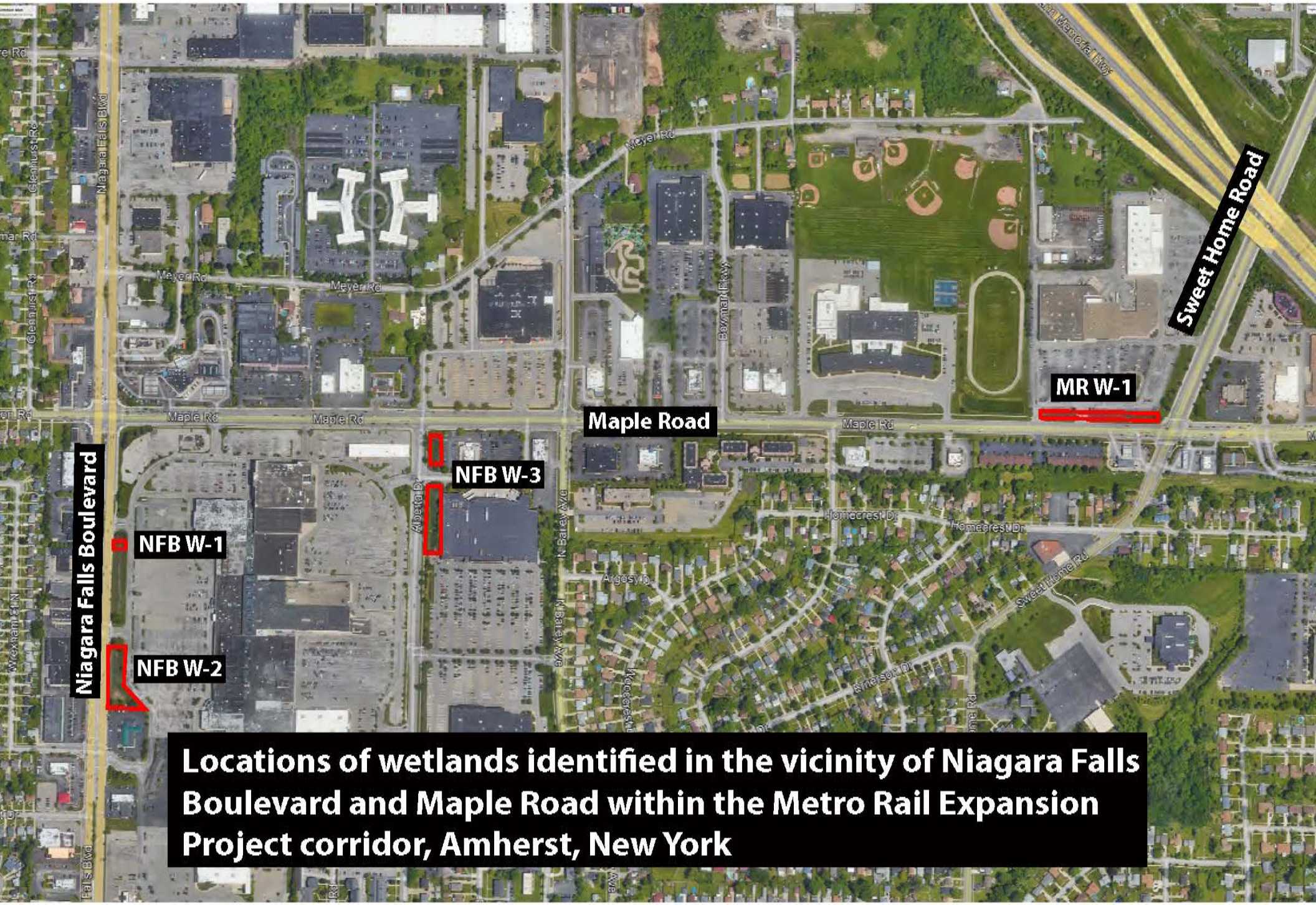
APPENDIX B

Wetland Maps

List of Figures:

- Wetland location maps (2 maps)
- Wetland boundaries/sample plot locations (12 maps)


Locations of wetlands identified at Ellicott Creek and along the John James Audubon Parkway within the Buffalo-Amherst-Tonawanda Corridor Transit Expansion Project Area, Amherst, New York
990
JJA W-6
Dodge Rd
990
JJA W-5
N Forest Rd
John James Audubon Pkwy
JJA W-4
JJA W-3
JJA W-2
JJA W-1
EC W-1
N
0 ft
1000 ft


Niagara Falls Boulevard
Maple Road
Sweet Home Road
NFB W-1
NFB W-2
NFB W-3
MR W-1
Meyer Rd
Maple Rd
Homecrest Dr
Sweet Home Rd
Bowman Pkwy
N Bailey Ave
Argosy Dr
Amherst Dr
Locations of wetlands identified in the vicinity of Niagara Falls Boulevard and Maple Road within the Metro Rail Expansion Project corridor, Amherst, New York

N Campus Blvd

Wetland: EC W-1

EC-W-1-7

EC-W-1-6

EC W-1-U

EC-W-1-5

EC-W-1-8

EC-W-1-4

EC W-1-W

EC-W-1-3

EC-W-1-1

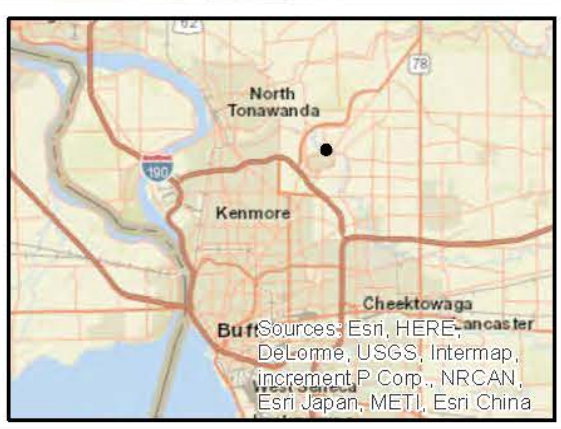
EC-W-1-2

NYS ITS GIS Program Office, Westchester County GIS

Legend

- Wetland Boundary Flags
- Wetland Data Point
- Upland Data Point
- Wetland Boundary

Project Location



0 5 10 20 Feet

Watts Architects &Engineers

Figure 1A
Wetland Delineation

Niagara Frontier Transportation Authority Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

Date: 3/3/2023

Sylvan Pkwy

Pinchot Ct

Wetland: JJA W-1

JJ-1-W-11
JJ-1-W-12
JJ-1-W-10
JJ-1-W-13
JJ-1-W-9
JJ-1-W-14
JJ-1-W-15
JJA W-1-W
JJA W-1-U
JJ-1-W-8
JJ-1-W-1
JJ-1-W-2
JJ-1-W-7
JJ-1-W-3
JJ-1-W-6
JJ-1-W-4
JJ-1-W-5

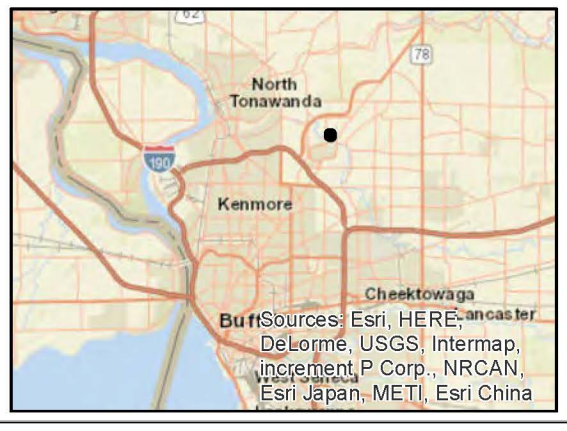
John James Audubon Pkwy

NYS ITS GIS Program Office, Westchester County GIS

Legend

- Wetland Boundary
- Wetland Boundary Flags
- Wetland Data Point
- Upland Data Point

Project Location



0 25 50 100 Feet

Figure 1B
Wetland Delineation

Niagara Frontier Transportation Authority Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

Date: 3/3/2023

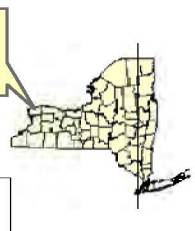
Watts Architects &Engineers

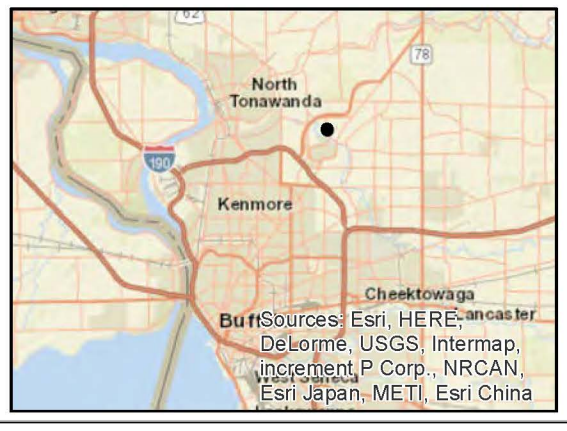
JJ-3-W-4
JJ-3-W-5
JJ-3-W-6
JJ-3-W-3
JJ-3-W-7
Wetland: JJA W-3
JJ-3-W-8
JJ-3-W-2
John James Audubon Pkwy
JJ-3-W-1
JJ-3-W-9
JJA W-3-U
JJA W-3-W
JJ-3-W-12
JJ-3-W-10
JJ-3-W-11
JJ-2-W-4
JJ-2-W-5
JJ-2-W-3
JJ-2-W-6
JJ-2-W-7
JJA W-2-W
JJA W-2-U
JJ-2-W-2
JJ-2-W-1
Wetland: JJA W-2
NYS ITS GIS Program Office, Westchester County GIS

Legend

- Wetland Boundary
- Wetland Boundary Flags
- Wetland Data Point
- Upland Data Point
- Wetland Boundary Continuation Arrows

Project Location





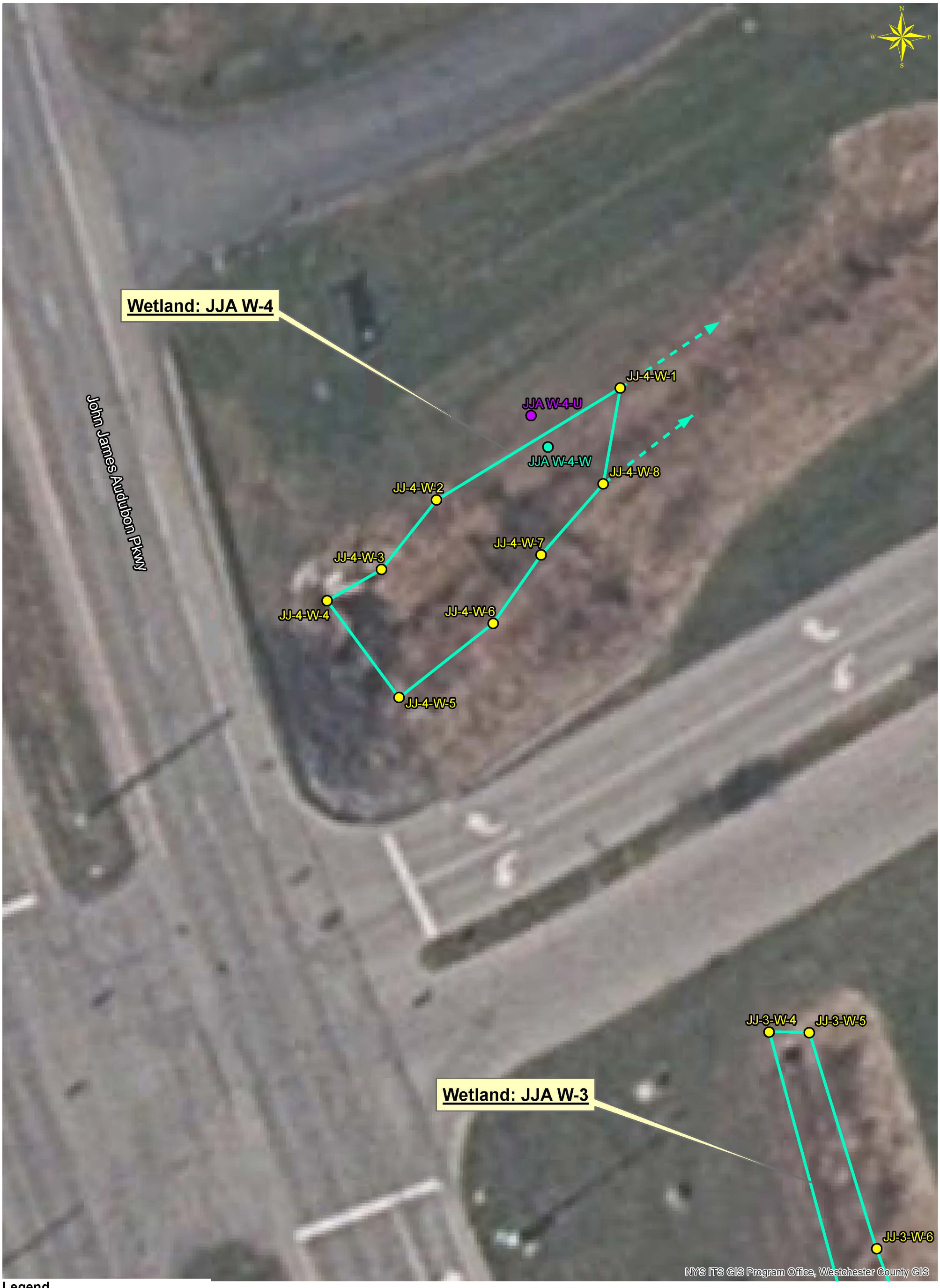
0 20 40 80 Feet

Watts Architects &Engineers

Figure 1C
Wetland Delineation

Niagara Frontier Transportation Authority Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

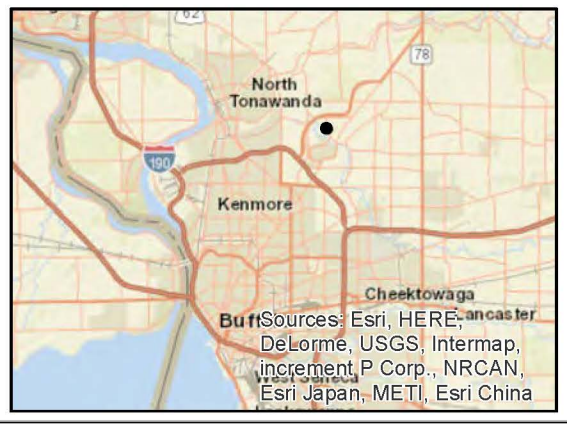
Date: 3/3/2023



Legend

- Wetland Boundary
- Wetland Boundary Flags
- Wetland Data Point
- Upland Data Point
- Wetland Boundary Continuation Arrows

Project Location



0 12.5 25 50 Feet

Watts Architects &Engineers

Figure 1D
Wetland Delineation

Niagara Frontier Transportation Authority Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

Date: 3/3/2023

Wetland: JJA W-5

JJ-5-W-8

JJ-5-W-19

Bryant Woods S

Partridge Run

JJ-5-W-1

JJ-5-W-7

JJ-5-W-6

Wetland: JJA W-5

JJ-5-W-2

John James Audubon Pkwy

JJ-5-W-5

JJ-5-W-3

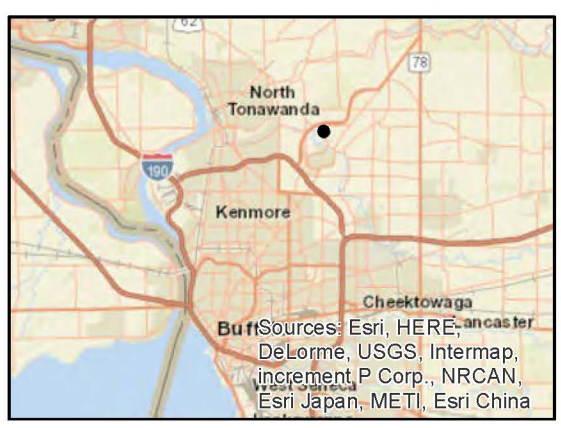
JJ-5-W-4

NYS ITS GIS Program Office, Westchester County GIS

Legend

- Wetland Boundary
- Wetland Boundary Flags
- Wetland Data Point
- Upland Data Point

Project Location



0 12.5 25 50 Feet

Watts Architects &Engineers

Figure 1E
Wetland Delineation

Niagara Frontier Transportation Authority Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

Date: 3/3/2023

Bryant Woods N

Wetland: JJA W-5

JJ-5-W-40

JJ-5-W-20

Partridge Run

Bluebird Ln

JJ-5-W-13

JJ-5-W-14

JJ-5-W-15

Mallard Ct

JJ-5-W-12

Wetland: JJA W-5

JJ-5-W-16

JJ-5-W-11

JJA W-5-W

JJA W-5-U

John James Audubon Pkwy

JJ-5-W-17

JJ-5-W-10

JJ-5-W-9

JJ-5-W-18

JJ-5-W-8

JJ-5-W-19

Bryant Woods S

Wetland: JJA W-5

JJ-5-W-1

JJ-5-W-7

NYS ITS GIS Program Office, Westchester County GIS

Legend

- Wetland Boundary
- Wetland Boundary Flags
- Wetland Data Point
- Upland Data Point

Project Location

Watts Architects &Engineers

0 30 60 120 Feet

Figure 1F
Wetland Delineation

Niagara Frontier Transportation Authority Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

Date: 3/3/2023

JJ-5-W-28
JJ-5-W-29
JJ-5-W-30
JJ-5-W-27
JJ-5-W-31
JJ-5-W-32
JJ-5-W-33
JJ-5-W-26
Wetland: JJA W-5
JJ-5-W-34
JJ-5-W-25
JJ-5-W-35
JJ-5-W-24
John James Audubon Pkwy
JJ-5-W-36
JJ-5-W-23
JJ-5-W-37
JJ-5-W-22
JJ-5-W-38
Bluebird Ln
JJ-5-W-21
JJ-5-W-39
JJ-5-W-20
JJ-5-W-40
Bryant Woods N
Partridge Run
NYS ITS GIS Program Office, Westchester County GIS

Legend

- Wetland Boundary
- Wetland Boundary Flags
- Wetland Data Point
- Upland Data Point
- Wetland Boundary Continuation Arrows

Project Location

0 40 80 160 Feet

Watts Architects &Engineers

Figure 1G
Wetland Delineation

Niagara Frontier Transportation Authority Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

Date: 3/3/2023

Legend

- Wetland Boundary
- Wetland Boundary Flags
- Wetland Data Point
- Upland Data Point
- Wetland Boundary Continuation Arrows

Project Location

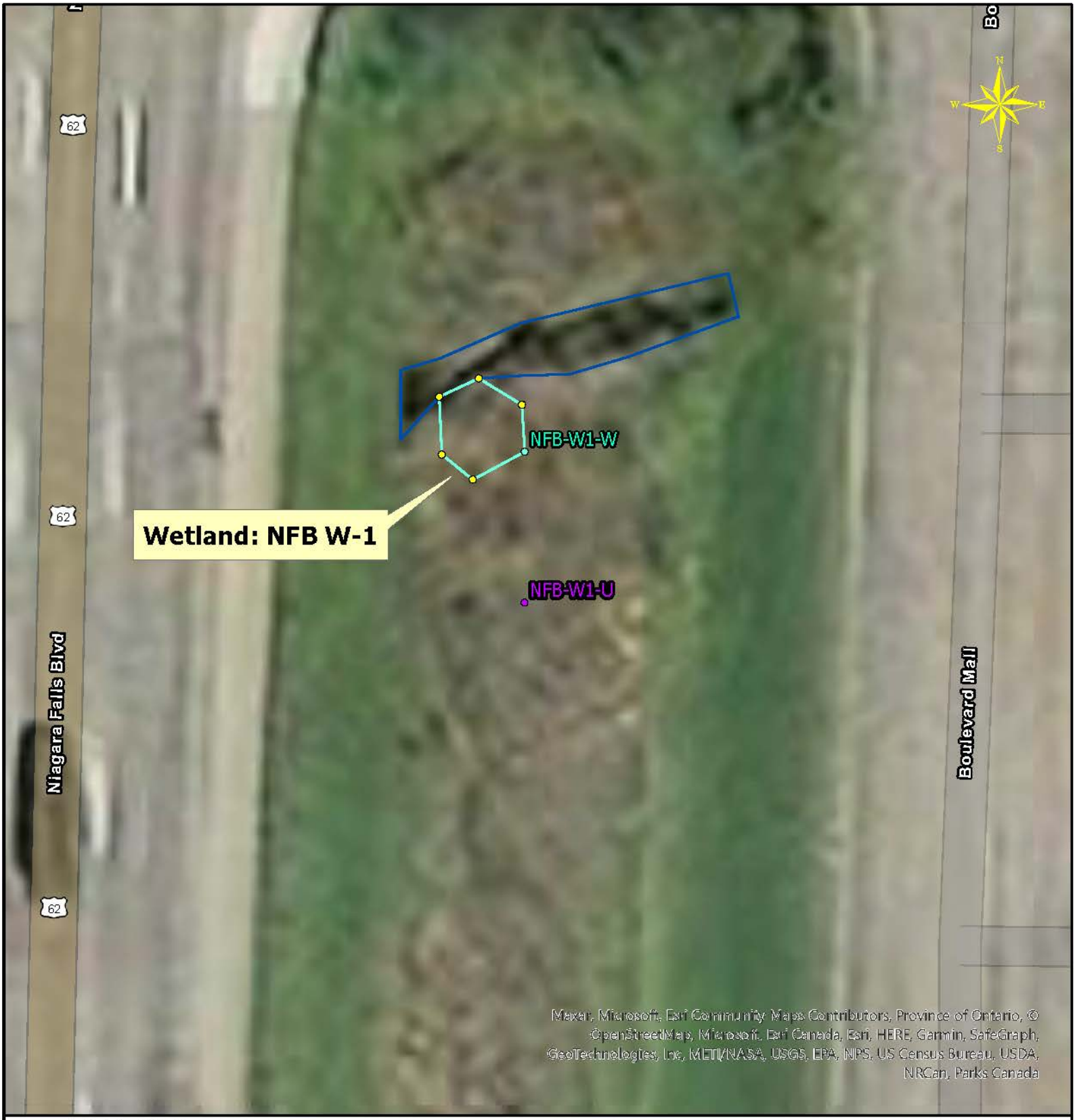
0 5 10 20 Feet

Figure 1H
Wetland Delineation

Niagara Frontier Transportation Authority Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

Date: 3/3/2023

Watts Architects &Engineers



Legend

- Wetland Boundaries
- Wetland Boundary Flags
- Wetland Datapoints
- Upland Points
- Open Water Ditch

0 0 0 0.01 Miles

Watts Architects &Engineers

Figure 1I
Wetland Delineation

Niagara Frontier Transportation Authority
Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

Date: 3/3/2023

Legend

- Wetland Boundaries
- Wetland Boundary Flags
- Wetland Datapoints
- Upland Points

0 0.01 0.01 0.02 Miles

Watts Architects &Engineers

Figure 1J
Wetland Delineation

Niagara Frontier Transportation Authority
Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

Date: 3/3/2023

Legend

- Wetland Boundaries
- Wetland Boundary Flags
- Wetland Datapoints
- Upland Points

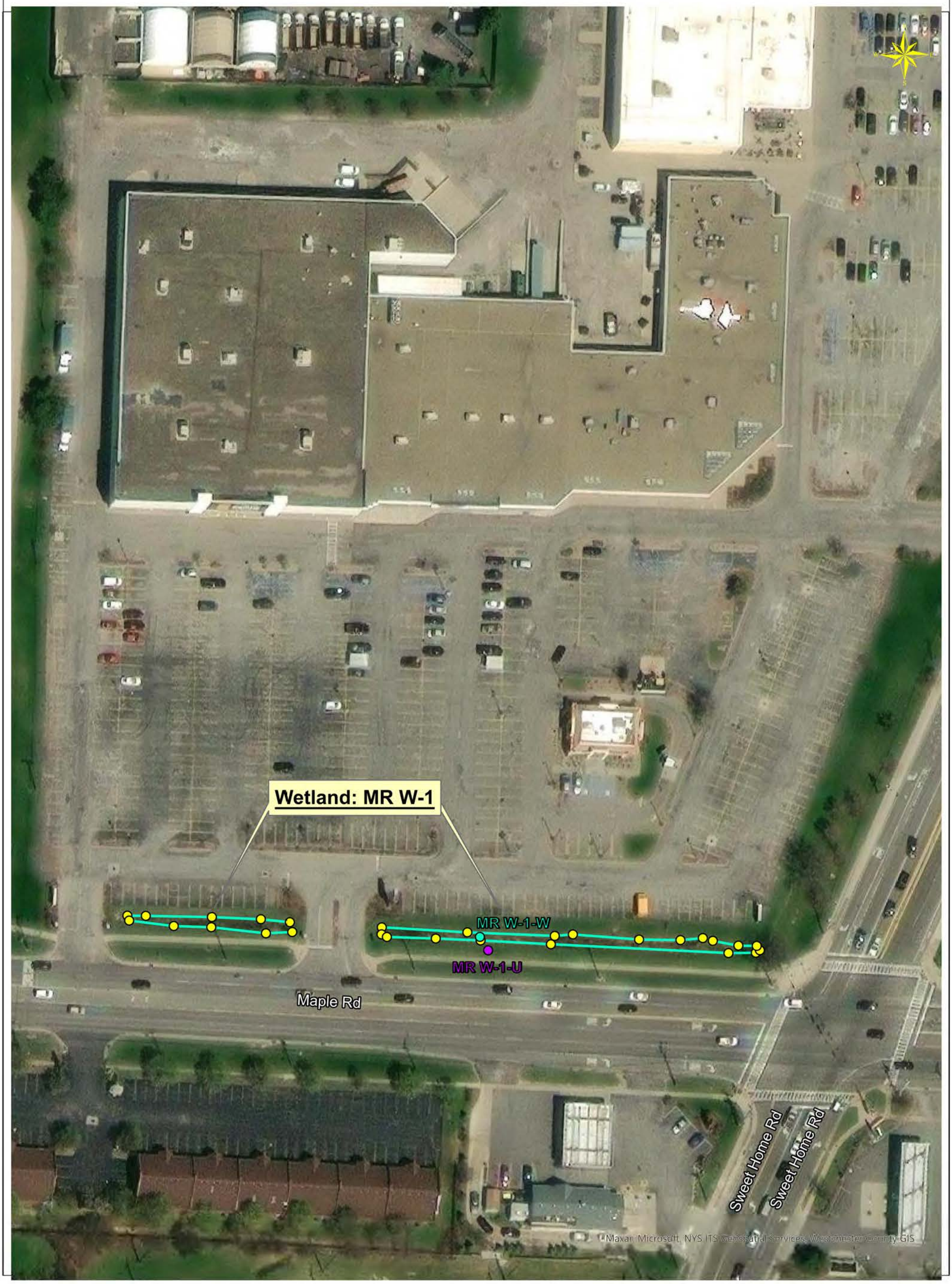
0 0.01 0.03 0.05 Miles

Watts Architects &Engineers

Figure 1K
Wetland Delineation

Niagara Frontier Transportation Authority
Buffalo-Amherst-Tonawanda Corridor Transit Expansion
Erie County, New York

Date: 3/3/2023



Legend

- Upland Data Point
- Wetland Boundary Flags
- Wetland Data Point
- Wetland Boundary

Watts Architects &Engineers

0 45 90 180 Feet

Figure 1L: Metro Rail Expansion Project
Wetland Delineation

Niagara Frontier Transportation Authority
Metro Rail Expansion Project
Erie County, New York

Date: 1/3/2024

APPENDIX C

Wetland Determination Data Forms and Photos

Photo 1 – Ordinary high water mark on Bizer Creek was determined by a moss trim line.

Appendix C – Photo log

Photo 2 – Bizer Creek south of Rensch Road. The channel width at water level was 19.0 feet on July 20, 2021. The width of the top of the concrete channel is 26.2 feet.

Appendix C – Photo log

Photo 3 – East bank of Bizer Creek south of Rensch Road. The bank is composed of Camillus shale 20-30 feet high.

Appendix C – Photo log

Photo 4 – West bank of Bizer Creek south of Rensch Road.

Appendix C – Photo log

Photo 5 – Bank of Ellicott Creek north of the John James Audubon Parkway Bridge (Plot EC N-UP). This bank was determined to not be a wetland.

Appendix C – Photo log

Photo 6 – Bank of Ellicott Creek east of the John James Audubon Parkway Bridge (Plot EC E-UP). This bank was determined to not be a wetland.

Appendix C – Photo log

Photo 7 – Bank of Ellicott Creek south of the John James Audubon Parkway Bridge. A small, narrow wetland (EC W-1) is present along the bottom of the bank adjacent to the water.

Appendix C – Photo log

Photo 8 – Bank of Ellicott Creek west of the John James Audubon Parkway Bridge. This bank was determined to not be a wetland. A data plot was not measured.

Appendix C – Photo log

Photo 9 – Ordinary high water mark (OHWM) of Ellicott Creek on the northeastern pier of the bridge for the pedestrian/bike trail adjacent to the John James Audubon Parkway Bridge. The OHWM is 2.0 feet above the stream bed at this location.

Appendix C – Photo log

Photo 10 – Wetland JJA W-1 is in a ditch on the east side of the John James Audubon Parkway. Vegetation is dominated by broadleaf cattail (*Typha latifolia*) and narrowleaf cattail (*Typha angustifolia*).

Appendix C – Photo log

Photo 11 – Wetland JJA W-1 is located within the outlet channel for a man-made pond (Muir Lake) that flows through a ditch.

Appendix C – Photo log

Photo 12 – Location of upland plot JJA W-1-U associated with Wetland JJA W-1.

Appendix C – Photo log

Photo 13 – Soil pit and vegetation of Wetland JJA W-2. This wetland is located within a ditch that serves as the outlet channel for Lake Audubon located in Walton Woods Park to the East of the John James Audubon Parkway. Vegetation is dominated by broadleaf cattail.

Appendix C – Photo log

Photo 14 – Wetland JJA W-3 is downstream in the same ditch as Wetland JJA W-2. Vegetation is dominated by gray willow (*Salix bebbiana*) in the sapling/shrub stratum and by broadleaf cattail and reed canary grass (*Phalaris arundinacea*) in the herb stratum. The associated upland plot (JJ W-3-U) was in the mown grass between the wetland and the John James Audubon Parkway.

Appendix C – Photo log

Photo 15 – Soil pit for Wetland JJA W-3.

Appendix C – Photo log

Photo 16 – Wetland JJA W-4, looking east from the John James Audubon Parkway. Vegetation is dominated by common reed grass (*Phragmites australis*). Water from Wetlands JJA W-2 and JJA W-3 flows into Wetland JJA W-4 from the south. Water from Wetland JJA W-5 flows into Wetland JJA 4-W from the north. Water from Wetland JJA 4-W flows west under the John James Audubon Parkway into Ellicott Creek.

Appendix C – Photo log

Photo 17 – Wetland JJA W-4, looking west toward the John James Audubon Parkway.

Appendix C – Photo log

Photo 18 – The west end of Wetland JJA W-4 looking south toward Wetlands JJA W-2 and JJA W-3.

Appendix C – Photo log

Photo 19 – Soil pits for Wetland JJA W-4 and for the associated upland plot JJ W-4-U.

Appendix C – Photo log

Photo 20 – Looking south along a portion of Wetland JJA W-5 that is in a ditch on the east side of the John James Audubon Parkway. This wetland is comprised of three sections that are connected by culverts. Wetland JJA W-5 flows underground into Wetland JJA W-4 to the south. Vegetation is dominated by common reed grass and broadleaf cattail.

Appendix C – Photo log

Photo 21 – Soil pit for Wetland JJA W-5.

Appendix C – Photo log

Photo 22 – Crayfish burrows were present in Wetland JJA W-5.

Appendix C – Photo log

Photo 23 – Soil pits for Wetland JJA W-5 and for the associated upland plot JJA W-5-U.

Appendix C – Photo log

Photo 24 – Wetland JJA W-6 located in a ditch along an east on-ramp to Interstate 990 from the John James Audubon Parkway. Vegetation is dominated by common reed grass.

Photo 25 – Soil pit for Wetland JJA W-6.

Appendix C – Photo log

Photo 26 – A small water collection basin at the base of the fill slope southeast of the Interstate 990 overpass over the John James Audubon Parkway is dominated by common reed grass, a hydrophytic species. However, it was determined that this basin is not a wetland.

Photo 27 – A portion of Wetland NFB W-1 (foreground), dominated by white panicled American-aster.

Appendix C – Photo log

Photo 28 – Soil sample from Wetland NFB W-1.

Appendix C – Photo log

Photo 29 – The water collection basin east of Niagara Falls Boulevard and south of Maple Road where Wetland NFB W-1 is located. Most of this basin is dominated by upland vegetation, such as bird's-foot trefoil.

Photo 30 – Northern portion of Wetland NFB W-2, located in a small drainage ditch within a water collection basin, and dominated by common reed grass (center of photo). The surrounding upland vegetation is dominated by bird's-foot trefoil and foxtail barley. The northern section is occasionally mowed.

Photo 31 – The southern portion of Wetland NFB W-2 is also dominated by common reed grass. The surrounding upland vegetation in this unmown section (rear of photo) is also dominated by common reed grass.

Appendix C – Photo log

Photo 32 – Large culvert that drains Wetland NFB W-2. Water flows under the mall parking lot east of Niagara Falls Boulevard and South of Maple Road.

Appendix C – Photo log

Photo 33 – Wetland NFB W-3 is in two water collection basins connected by a culvert. The wetland is located east of Albert Drive and south of Maple Road. Vegetation is dominated by common reed grass, broad-leaf cattail, and narrow-leaf cattail.

Photo 34 – North end of the northern section of Wetland NFB W-3.

Appendix C – Photo log

Photo 35 – A short, open water habitat, about 25 feet long and 10 feet wide is enclosed within the southern section of Wetland NFB W-3. This open water was considered part of the wetland and not a creek channel (water was not flowing when the wetland determination was conducted). The culvert is located under Alberta Drive.

Appendix C – Photo log

Photo 36 – Soil pit for Wetland NFB W-3.

Appendix C – Photo log

Photo 37 – Upland soil pit for Wetland NFB W-3.

Appendix C – Photo log

Photo 38 – South end of the culvert connecting the two sections of Wetland NFB W-3.

Appendix C – Photo log

Photo 39 – North end of the culvert connecting the two sections of Wetland NFB W-3.

Appendix C – Photo log

Photo 40 – Sweet Home Road between Maple Road and the I-290 overpass, with its west bank dominated by upland vegetation.

Photo 41 – Sweet Home Road between Maple Road and the I-290 overpass, with its east bank dominated by upland vegetation.

Photo 42 – Eastern section of Wetland MR W-1.

Appendix C – Photo log

Photo 43 – Western section of Wetland MR W-1.

Appendix C – Photo log

Photo 44 – Wetland soil pit for Wetland MR W-1.

Appendix C – Photo log

Photo 45 – Culverts connecting the eastern and western sections of Wetland MR W-1.

Appendix C – Photo log

Photo 46 – Multiple culverts drain the parking lot north of Wetland MR W-1.

Appendix C – Photo log

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: July 21, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: EC W-1-W

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Stream bank Local relief (concave, convex, none): None Slope (%): 25%

Subregion (LRR or MLRA): LRR-L (101) Lat: N43 degrees 0.4907 minutes Long: W78 degrees 46.8214 minutes Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: PEM1 (not depicted in NWI)

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

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

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

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

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

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

Community type: Wet forbland

There was a heavy rainfall event three days prior to data collection. Wetland delineation flags EC W-1-1 through EC W-1-8

HYDROLOGY

Wetland Hydrology Indicators:

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

- [ ] Surface Water (A1)
- [ ] 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)
- [X] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes [ ]	No [X]	Depth (inches):
Water Table Present?	Yes [X]	No [ ]	Depth (inches): 13 inches
Saturation Present? (includes capillary fringe)	Yes [X]	No [ ]	Depth (inches): 9 inches

Wetland Hydrology Present? **Yes** [X] **No** [ ]

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

Remarks:

There was a heavy rainfall event three days prior to data collection.

VEGETATION – Use scientific names of plants.

Sampling Point: EC W-1-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 3' X 40')			
1. Persicaria maculosa	50	Yes	FAC
2. Eutrochium maculatum	30	Yes	OBL
3. Typha latifolia	5	No	OBL
4. Teucrium canadense	1	No	FACW
5. Urtica dioica	1	No	FAC
6. Rumex crispus	1	No	FAC
7. Epilobium hirsutum	1	No	FACW
8.			
9.			
10.			
11. 50% of total cover: 44.5%			
12. 20% of total cover: 17.8%			
	89 = Total Cover		
Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= 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	35	x 1 =	35
FACW species	2	x 2 =	4
FAC species	52	x 3 =	156
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	89 (A)		195 (B)

Prevalence Index = B/A = 2.2

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Invasive plants low: Japanese knotweed, mugwort

SOIL

Sampling Point: EC W-1-W

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
0-23	10 YR 3/1	90	10 YR 3/6	10	C	M	Clayey silt	
23 " total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 10, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-1-W

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR-L (101) Lat: N43 degrees 0.7218 minutes Long: W78 degrees 46.7147 minutes Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: PEM1/R3UB3Hx (not depicted in NWI)

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

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

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

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

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

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

JJA W-1-W the wetland plot associated with JJA Wetland 1, which is a roadside ditch that drains a man-made pond into Ellicott Creek. Wetland delineation flags JJ 1-W-1 through JJ 1-W-15.

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)
- [ ] 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 [X] No [ ] Depth (inches): 3"

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:

There was a heavy rainfall event three days prior to data collection.

Channel width at OHWM estimated to be 15-18 feet wide
OHWM 16" above stream bottom

Invasive plants (low): Purple loosestrife

VEGETATION – Use scientific names of plants.

Sampling Point: JJA W-1-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. Typha latifolia	60	Yes	OBL
2. Typha angustifolia	30	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 45%			
12. 20% of total cover: 18%			
	90 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? **Yes** [X] **No** [ ]

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

SOIL

Sampling Point: JJA W-1-W

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	10 YR 4/2	95	10 YR 4/6	5	C	M	Silty clay	Brown
14-22	5 YR 4/1	92	10 YR 4/6	8	C	M	Silty clay	Gray
Total 22"								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 15, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-2-W

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 00 min 54.40 sec Long: W 78 deg 46 min 51.67 sec Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: R4SBCx

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

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

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

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

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

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

Community type: Marsh

JJA W-2-W is the wetland plot associated with JJA Wetland 2, and is located in a ditch that drains Lake Audubon located in Walton Woods Park to the East . Wetland delineation flags JJ 2-W-1 through JJ 2-W-7. Wetland extends east beyond delineated portion of ditch. Recent heavy thunderstorms (last three nights).

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)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [X] No [ ]	Depth (inches):	4"
Water Table Present?	Yes [X] No [ ]	Depth (inches):	3"
Saturation Present? (includes capillary fringe)	Yes [X] No [ ]	Depth (inches):	0" (to the surface)

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: JJA W-2-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' x 50')			
1. Salix bebbiana	5	Yes	FACW
2. Fraxinus pennsylvanica	2	No	FACW
3. Lythrum salicaria	1	No	OBL
4.			
5.			
6. 50% of total cover: 4%			
7. 20% of total cover: 1.6%			
	8 = Total Cover		

Herb Stratum (Plot size: 8' x 10')			
1. Typha latifolia	75%	Yes	OBL
2. Impatiens capensis	20%	No	FACW
3. Phalaris arundinacea	5%	No	FACW
4. Solanum dulcamara	1	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 50.5%			
12. 20% of total cover: 20.2%			
	101 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= 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	76	x 1 =	76
FACW species	32	x 2 =	64
FAC species	1	x 3 =	3
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	109 (A)		143 (B)

Prevalence Index = B/A = 1.3

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Invasive plants (trace amount): Purple loosestrife

SOIL

Sampling Point: JJA W-2-W

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
0-8	2.5Y 3/1	100					Silt loam	
8-20	10 YR 3/1	70	7.5 YR 5/1	30	D	M	Silty clay	
20" total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 10, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-3-W

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 00 min 55.39 sec Long: W 78 deg 46 min 52.97 sec Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) / Claverick loamy fine sand 0%-3% slopes (CrA) NWI classification: R4SBCx

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

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

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

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

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

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

Community type: Marsh

JJA W-3-W is the wetland plot associated with JJA Wetland 3, and is located in a ditch that drains Lake Audubon located in Walton Woods Park to the East . JJA Wetland 3 is located downstream in the same ditch where JJA Wetland 2 is located (but with different vegetation). The edge of the wetland (about 6 feet) on the west side near JJA Parkway is occasionally mowed. Wetland delineation flags JJ 3-W-1 through JJ 3-W-12.

HYDROLOGY

Wetland Hydrology Indicators:

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

- [X] Surface Water (A1)
- [ ] 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)
- [X] 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 [X] No [ ] Depth (inches): 2"-3"

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

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 5"

Wetland Hydrology Present? Yes [X] **No** [ ]

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

Remarks:

Water table at 16 inches

VEGETATION – Use scientific names of plants.

Sampling Point: JJA W-3-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10' x 71')			
1. Salix bebbiana	20	Yes	FACW
2. Lythrum salicaria	2	No	OBL
3.			
4.			
5.			
6. 50% of total cover: 11%			
7. 20% of total cover: 4.4%			
	22 = Total Cover		
Herb Stratum (Plot size: 10' x 8')			
1. Typha latifolia	80	Yes	OBL
2. Phalaris arundinacea	75	Yes	FACW
3. Impatiens capensis	25	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 90%			
12. 20% of total cover: 36%			
	180 = Total Cover		
Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? **Yes** [X] **No** [ ]

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

Invasive plants (low): Purple loosestrife

No evidence of OHWM

SOIL

Sampling Point: JJA W-3-W

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					Mucky loam	
4-13	10 YR 4/4	80	7.5 YR 5/8	20	C	M	Silty sand w/clay	
13-22	10 YR 4/3	70	7.5 YR 4/6	30	C	M	Clayey silt	
22" total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 15, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-4-W

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Ditch / Water collection basin Local relief (concave, convex, none): Concave Slope (%): 3%

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 00 min 59.30 sec Long: W 78 deg 46 min 54.80 sec Datum: WGS84

Soil Map Unit Name: Claverick loamy fine sand 0%-3% slopes (CrA) / Cosad loamy fine sand (Cv) NWI classification: R4SBCx

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

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

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

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

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

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

JJA W-4-W is the wetland plot associated with JJA Wetland 4. It is located at the edge of a water collection basin that drains parking lots, and collects water from JJA Wetland 3 and JJA Wetland 5. Water flows from JJA Wetland 4, under the John James Audubon Parkway, and into Ellicott Creek. Wetland delineation flags JJ 4-W-1 through JJ 4-W-8. Wetland extends east beyond delineated portion of ditch. Recent heavy thunderstorms (last three nights).

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)
- [ ] 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 [X] No [ ] Depth (inches): 6"

Water Table Present? Yes [ ] No [ ] Depth (inches):

Saturation Present? (includes capillary fringe) Yes [ ] No [ ] 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: JJA W-4-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. Phragmites australis	100%	YES	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? **Yes** [X] **No** [ ]

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

Invasive plants (high): Common reed grass

SOIL

Sampling Point: JJA W-4-W

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-20	10YR 5/1	100					Silty clay	Gray clay with trace silt
20" total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 15, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-5-W

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 01 min 14.15 sec Long: W 78 deg 46 min 57.69 sec Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) / Lakemont silt loam, 0%-3% slopes NWI classification: PEM5 (not mapped)

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

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

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

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

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

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

Community type: Marsh

JJA W-5-W is the wetland plot associated with JJA Wetland 5. It is located in a ditch that parallels John James Audubon Parkway. The wetland is located in three sections, separated by roads with culverts connecting the three sections. Wetland delineation flags JJ 5-W-1 through JJ 5-W-7 for southern section, flags JJ 5-W-8 through JJ 5-W-19 for center section, and flags JJ 5-W-20 through JJ 5-W-40 for northern section. Recent heavy thunderstorms (last three nights).

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)
- [ ] 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)
- [X] 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 [X]	No [ ]	Depth (inches): 4"
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: JJA W-5-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 10' x 70')			
1. Salix bebbiana	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5 = Total Cover		

Herb Stratum (Plot size: 10' x 20')			
1. Phragmites australis	75	Yes	FACW
2. Typha latifolia	30	Yes	OBL
3. Typha angustifolia	10	No	OBL
4. Leersia oryzoides	10	No	OBL
5. Lycopus europaeus	1	No	OBL
6. Schoenoplectus tabernaemontani	1	No	OBL
7.			
8.			
9.			
10.			
11. 50% of total cover: 63.5%			
12. 20% of total cover: 25.4%			
	127 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? **Yes** [X] **No** [ ]

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

SOIL

Sampling Point: JJA W-5-W

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10 YR 3/2	100					Clay loam	
3-20	7.5 YR 4/2	75	10 YR 5/6	15	C	M	Silty clay	Clay layers
			5 Y 5/1	10	D	M		
20" total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

Depth (inches): 3"

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 16, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-6-W

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 01 min 29.97 sec Long: W 78 deg 46 min 54.85 sec Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: R4SBCx

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

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

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

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

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

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

Community type: Marsh

JJA W-6-W is the wetland plot associated with JJA Wetland 6. It is located in a ditch at the base of the fill slope of an on-ramp from John James Audubon Parkway to Interstate 990. Water flows east to west. Wetland delineation flags JJ 6-W-1 through JJ 6-W-6. Wetland extends east beyond flagged area. Recent heavy thunderstorms.

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)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [X] No [ ]	Depth (inches):	1"
Water Table Present?	Yes [X] No [ ]	Depth (inches):	6"
Saturation Present? (includes capillary fringe)	Yes [X] No [ ]	Depth (inches):	0 (to the surface)

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: JJA W-6-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. Phragmites australis	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? **Yes** [X] **No** [ ]

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

Invasive species: Common reed grass (high); purple loosestrife (low)

SOIL

Sampling Point: JJA W-6-W

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-10	2.5 Y 2.5/1	100					mucky clay	
10" total	to refusal (rocks)							6"-12" cobbles line the ditch

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: August 3, 2022

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: NFB W-1-W

Investigator(s): Morgan George, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR-L (101) Lat: 42.98928833 Long: -078.82232094 Datum: NAD 1983

Soil Map Unit Name: Urban land (Ud) NWI classification: PEM 1 (not mapped)

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

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

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

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

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

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

Community type: Marsh

Wetland NFB W-1 is located east of Niagara Falls Blvd, south of Maple Road. The wetland is in an excavated water collection basin that collects drainage water from parking lots and roads. The wetland is located adjacent to a short, open drainage ditch that flows east into a culvert. 6 boundary pin flags.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes [ ]	No [X]	Depth (inches):
Water Table Present?	Yes [X]	No [ ]	Depth (inches): 4"
Saturation Present? (includes capillary fringe)	Yes [X]	No [ ]	Depth (inches): 3"

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: NFB W-1-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. Symphyotrichum lanceolatum	90	Yes	FACW
2. Hordeum jubatum	5	No	FAC
3. Daucus carota	5	No	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 50%			
12. 20% of total cover: 20%			
	100 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? **Yes** [X] **No** [ ]

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

SOIL

Sampling Point: NFB W-1-W

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-9"	10YR 2/1	100					Mucky loam clay	
9" total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

Depth (inches): 9"

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: August 3, 2022

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: NFB W-2-W

Investigator(s): Morgan George, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR-L (101) Lat: 42.98764108 Long: -0.78.82235247 Datum: NAD 1983

Soil Map Unit Name: Urban land (Ud) NWI classification: PEM5 (not mapped)

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

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

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

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

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

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

Community type: Marsh

Wetland NFB W-2 is located east of Niagara Falls Blvd, south of Maple Road. The wetland is in an excavated water collection basin lined with cobbles. The wetland is in a ditch that connects a culvert under Niagara Falls Blvd to a culvert under the Boulevard Mall parking lot. The ditch where the wetland is located is lined with cobbles, so no soil pit was dug. About 65% of the wetland is occasionally mowed (northern portion). 29 boundary pin flags.

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)
- [ ] 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 [X]	No [ ]	Depth (inches): 3"
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: NFB W-2-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 3' X 25')			
1. Phragmites australis	90	Yes	FACW
2. Lythrum salicaria	2	No	OBL
3. Schoenoplectus tabernaemontani	1	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 46.5%			
12. 20% of total cover: 18.6%			
	93 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? **Yes** [X] **No** [ ]

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

SOIL

Sampling Point: NFB W-2-W

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

Depth (inches): 0" (surface)

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

Remarks:

Problematic soil. The ditch where the wetland is located is lined with cobbles, so no soil pit was dug.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: August 3, 2022

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: NFB W-3-W

Investigator(s): Morgan George, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR-L (101) Lat: 42.99000858 Long: -0.78.81682968 Datum: NAD 1983

Soil Map Unit Name: Urban land (Ud) NWI classification: PEM1 (not mapped)

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

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

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

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

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

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

Community type: Select from list

Wetland NFB W-3 is located east of Alberta Drive, south of Maple Road. The wetland is in an excavated water collection basin that collects drainage water from parking lots and roads. The wetland is in two sections connected by a culvert under an unnamed road. Northern section: 17 boundary pin flags. Southern section: 28 boundary pin flags.

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)
- [X] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [X] Water-Stained Leaves (B9)
- [X] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [X] 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 [X] No [ ]	Depth (inches):	4-7" in some areas
Water Table Present?	Yes [X] No [ ]	Depth (inches):	11"
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: NFB W-3-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. Phragmites australis	50	Yes	FACW
2. Typha latifolia	20	Yes	OBL
3. Typha angustifolia	20	Yes	OBL
4. Schoenoplectus tabernaemontani	5	No	OBL
5. Schoenoplectus pungens	2	No	OBL
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 48.5%			
12. 20% of total cover: 19.4%			
	97 = Total Cover		
Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? **Yes** [X] **No** [ ]

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

SOIL

Sampling Point: NFB W-3-W

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2"	2.5Y 2.5/1	100					Loam clay	Mucky
4-14"	5Y 2.5/1	100					Clay	
14" total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

Depth (inches): 14"

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Metro Rail Expansion Project City/County: Amherst/Erie County Sampling Date: October 11, 2023

Applicant/Owner: Niagara Frontier Transportation Authority State: NY Sampling Point: MR-W1-W

Investigator(s): Rachele Anthony, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 42 deg 59 min 27.3 sec N Long: 78 deg 48 min 19.03 sec W Datum: WGS 1984

Soil Map Unit Name: Ilion silt loam (In) NWI classification: PEM1 (not mapped)

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

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

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

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

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

Remarks: (Explain alternative procedures here or in a separate report.)
Community type: Wet forbland

Drainage ditch--2 sections connected with double culvert under Maple Ridge Centre (MRC) driveway. Water flows east. No obvious outlet. West segment has two culverts originating from under MRC parking lot. East segment has two culverts originating from under MRC parking lot. Wetland is mowed.

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)
- [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)
- [X] 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)
- [X] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [X] No [ ]	Depth (inches): 1	
Water Table Present?	Yes [X] No [ ]	Depth (inches): 5	
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:

Recent rain. Dry algal mats observed when dry. Wetland data collected day after rain, so dry algal mats not observed at that time.

VEGETATION – Use scientific names of plants.

Sampling Point: MR-W1-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5' X 16')			
1. Panicum dichotomiflorum	65	Yes	FACW
2. Sagina procumbens	30	Yes	FAC
3. Cyperus bipartus	15	No	FACW
4. Phragmites australis	5	No	FACW
5. Schoenoplectus tabernaemontani	3	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	118 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= 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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	33	x 1 =	33
FACW species	70	x 2 =	140
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	118 (A)		218 (B)

Prevalence Index = B/A = 1.85

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

SOIL

Sampling Point: MR-W1-W

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	2.5Y 2.5/1	100					Muck	
2-6	2.5Y 2.5/1	100					Loam	Gravel with loam and organics
6-17	10YR 4/1	70	10YR 4/4	30	C	M	Silty clay	Clay

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☒ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: July 21, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: EC E-UP

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Stream bank Local relief (concave, convex, none): None Slope (%): 15%

Subregion (LRR or MLRA): LRR-L (101) Lat: N43 degrees 0.5053 minutes Long: W78 degrees 46.8080 minutes Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: None

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

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

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

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

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

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

There was a heavy rainfall event three days prior to data collection.

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:

There was a heavy rainfall event three days prior to data collection.

OHWM of Elicott Creek 8' 4" from crack in bridge abutment
OHWM of Ellicott Creek 2' 0" from creek bottom

VEGETATION – Use scientific names of plants.

Sampling Point: EC E-UP

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Verbena urticifolia	60	Yes	FAC
2. Persicaria maculosa	5	No	FAC
3. Oenothera biennis	1	No	FACU
4. Mentha spicata	1	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 33.5			
12. 20% of total cover: 13.4			
	67 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	1	x 2 =	2
FAC species	65	x 3 =	195
FACU species	1	x 4 =	4
UPL species		x 5 =	
Column Totals:	67 (A)		201 (B)

Prevalence Index = B/A = 3.0

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

SOIL

Sampling Point: EC E-UP

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	7.5 YR 3/2	100					Silt loam w/clay	
12" total	to refusal with	gravel	cobble					

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: July 21, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: EC N-UP

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Stream bank Local relief (concave, convex, none): None Slope (%): 25%

Subregion (LRR or MLRA): LRR-L (101) Lat: N43 degrees 0.5243 minutes Long: W78 degrees 46.8310 minutes Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: None

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

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

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

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

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

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

There was a heavy rainfall event three days prior to data collection.

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:

There was a heavy rainfall event three days prior to data collection.

Plot west of 2 culverts

VEGETATION – Use scientific names of plants.

Sampling Point: EC N-UP

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Catalpa spp.	2	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	2 = Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. Teucrium canadense	50	Yes	FACW
2. Phalaris arundinacea	25	Yes	FACW
3. Solidago canadensis	10	No	FACU
4. Iris pseudacorus	5	No	OBL
5. Verbena urticifolia	2	No	FAC
6. Vitis riparia	1	No	FAC
7.			
8.			
9.			
10.			
11. 50% of total cover: 47.0			
12. 20% of total cover: 18.8			
	93 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= 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: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	75	x 2 =	150
FAC species	3	x 3 =	9
FACU species	12	x 4 =	48
UPL species		x 5 =	
Column Totals:	95 (A)		212 (B)

Prevalence Index = B/A = 2.2

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

SOIL

Sampling Point: EC N-UP

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-16	7.5 YR 3/1	100					Clayey silt	
16-21	10 YR 3/2	100					silty clay	
21" total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: July 21, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: EC W-1-U

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Stream bank Local relief (concave, convex, none): None Slope (%): 25%

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 0.4952 min Long: W 78 deg 46.8286 min Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: None

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

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

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

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

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

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

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: EC W-1-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. Persicaria maculosa	50	Yes	FAC
2. Rapistrum rugosum	10	No	UPL
3. Teucrium canadense	5	No	FACW
4. Arctium spp.	5	No	UPL
5. Artemisia vulgaris	1	No	UPL
6. Abutilon theophrasti	1	No	FACU
7. Urtica dioica	1	No	FAC
8. Cirsium arvense	1	No	FACU
9. Ageratina altissima	1	No	FACU
10.			
11. 50% of total cover: 37.5%			
12. 20% of total cover: 15.0%			
	75 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	51	x 3 =	153
FACU species	3	x 4 =	12
UPL species	16	x 5 =	80
Column Totals:	75 (A)		255 (B)

Prevalence Index = B/A = 3.4

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Invasive plants (low): Mugwort, Canada thistle

SOIL

Sampling Point: EC W-1-U

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	7.5 YR 3/2	100					Clayey silt	trace fine sand
20" total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☒ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 10, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-1-U

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Fill slope along road Local relief (concave, convex, none): None Slope (%): 36%

Subregion (LRR or MLRA): LRR-L (101) Lat: N43 degrees 0.7218 minutes Long: W78 degrees 46.7147 minutes Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: None

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

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

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

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

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

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

JJA W-1-U is the upland plot associated with JJA Wetland 1, and is located on the fill slope along the John James Audubon Parkway adjacent to a roadside ditch where JJA Wetland 1 located.

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: JJA W-1-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10' x 70')			
1. Fraxinus americana	1	Yes	FACU
2. Pyrus calleryana	1	Yes	UPL
3. Cornus racemosa	1	Yes	FAC
4. Lythrum salicaria	1	Yes	OBL
5. Ulmus americana	1	Yes	FACW
6. 50% of total cover: 2.5%			
7. 20% of total cover: 1.0 %			
	5 = Total Cover		
Herb Stratum (Plot size: 5' x 16')			
1. Unknown grass	70	Yes	(FACU)
2. Solidago canadensis	15	No	FACU
3. Symphyotrichum novae-angliae	10	No	FACW
4. Symphyotrichum ericoides	5	No	FACU
5. Toxicodendron radicans	3	No	FAC
6. Phragmites australis	1	No	FACW
7. Daucus carota	1	No	UPL
8. Rudbeckia hirta	1	No	FACU
9. Sonchus arvensis	1	No	FACU
10. Cirsium vulgare	1	No	FACU
11.			
12. 50% of total cover: 54% 20% of total cover: 21.6%			
	108 = Total Cover		
Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	1	x 1 =	1
FACW species	12	x 2 =	24
FAC species	4	x 3 =	12
FACU species	94	x 4 =	376
UPL species	2	x 5 =	10
Column Totals:	113 (A)		423 (B)

Prevalence Index = B/A = 3.74

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

Unknown grass (mowed) was assumed to be a non-wetland species and was assigned an indicator status of FACU for the calculation the the prevalence index.

Invasive plants in upland (low): Common buckthorn, purple loosestrife, cut-leaf teasel, Canada thistle

SOIL

Sampling Point: JJA W-1-U

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10 YR 4/2	100					Sandy loam	Brown
3-21	10 YR 4/6	100					Silty sand	Light brown
Total 21"								Not likely native soil
								(roadside bank)

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 15, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-2-U

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Ditch bank Local relief (concave, convex, none): None Slope (%): 35%

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 00 min 54.36 sec Long: W 78 deg 46 min 51.67 sec Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: None

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

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

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

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

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

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

Community type: Forbland

JJA W-2-U the upland plot associated with JJA Wetland 2, and is at the top of the bank of the ditch where JJA Wetland 2 is located. Recent heavy thunderstorms (last three nights).

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: JJA W-2-U

Tree Stratum (Plot size: 10' x 70')	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus deltoides	20	Yes	FAC
2. Gleditsia triacanthos	10	Yes	FAC (planted)
3.			
4.			
5.			
6. 50% of total cover: 15%			
7. 20% of total cover: 6%			
	30	= Total Cover	

Sapling/Shrub Stratum (Plot size: 10' x 70')			
1. Rhamnus cathartica	2	Yes	FAC
2. Rosa multiflora	2	Yes	FACU
3. Pyrus calleryana	1	No	UPL
4. Lonicera morrowii	1	No	FACU
5. Fraxinus pennsylvanica	1	No	FACW
6. Cornus racemosa	1	No	FAC
7. 50% of total cover: 4%; 20% of total cover: 1.6%			
	8	= Total Cover	

Herb Stratum (Plot size: 10' x 8')			
1. Unknown grass (mowed)	80	Yes	(FACU)
2. Solidago canadensis	40	Yes	FACU
3. Vicia sativa	5	No	FACU
4. Cirsium arvense	2	No	FACU
5. Artemisia vulgaris	1	No	UPL
6. Daucus carota	1	No	UPL
7. Linaria vulgaris	1	No	UPL
8.			
9.			
10.			
11. 50% of total cover: 65%			
12. 20% of total cover: 26%			
	130	= Total Cover	

Woody Vine Stratum (Plot size: 10' x 70')			
1. Vitis riparia	5	Yes	FAC
2. Toxicodendron radicans	1	No	FAC
3.			
4. 50% of total cover: 3%; 20% of total cover: 1.2%			
	6	= 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: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.8% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	1	x 2 =	2
FAC species	29	x 3 =	87
FACU species	130	x 4 =	520
UPL species	4	x 5 =	20
Column Totals:	164 (A)		629 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

Unknown grass (mowed) was assumed to be a non-wetland species and was assigned an indicator status of FACU for the calculation the the prevalence index.

Gleditsia triacanthos was not used to conduct the Dominance Test or the Prevalence Index because it was planted, so is not a good indicator of site conditions.

Invasive plants (moderate): Mugwort, Canada thistle, common buckthorn, multiflora rose

SOIL

Sampling Point: JJA W-2-U

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	7.5 YR 3/1	100					Silt loam	Dark brown
5-20	10 YR 4/3	100					Sandy loam	
20" total								
								Non-native soil or re-worked native soil

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 10, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-3-U

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Elevated, landscaped area adjacent to drainage ditch Local relief (concave, convex, none): Convex Slope (%): 1%

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 00 min 55.37 sec Long: W 78 deg 46 min 53.03 sec Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: None

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

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

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

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

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

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

JJA W-3-U is the upland plot associated with JJA Wetland 3, and is located on an elevated, landscaped area adjacent to the drainage ditch where wetland JJA Wetland 3 is located.

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: JJA W-3-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5' x 16')			
1. Unknown grass (mowed)	75	Yes	(FACU)
2. Desmodium paniculatum	50	Yes	FACU
3. Cichorium intybus	10	No	FACU
4. Centaurea stoebe	2	No	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 68.5%			
12. 20% of total cover: 27.4%			
	137 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
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: 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	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	135	x 4 =	540
UPL species	2	x 5 =	10
Column Totals:	137 (A)		550 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

Unknown grass (mowed) was assumed to be a non-wetland species and was assigned an indicator status of FACU for the calculation the the prevalence index.

Invasive plants (low): Spotted knapweed, common buckthorn, purple loosestrife, multiflora rose, cut-leaf teasel

SOIL

Sampling Point: JJA W-3-U

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10 YR 3/3	100					Silt	
6-20	10 YR 5/6	100					Silt	Trace sand/trace clay
20" total								
								Non-native soil or re-worked native soil

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 15, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-4-U

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Sloped, landscaped lawn and unmowed ditch slope Local relief (concave, convex, none): None Slope (%): 15%/35%

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 00 min 59.37 sec Long: W 78 deg 46 min 54.85 sec Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) / Laverack loamy fine sand, 0%-3% slopes (CrA) NWI classification: None

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

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

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

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

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

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

Community type: Forbland

JJA W-4-U is the upland plot associated with JJA Wetland 4. 50% of JJA W-4-U is located on a sloping, landscaped, mowed, area adjacent to the drainage where JJA Wetland 4 is located (15% slope). 50% of JJA W-4-U is located on the unmowed slope (35% slope) of the ditch adjacent to JJA Wetland 4. Recent heavy thunderstorms (last three nights).

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 [X] No [ ] Depth (inches): 14"

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: JJA W-4-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rubus allegheniensis	2	Yes	FACU
2. Fraxinus pennsylvanica	1	No	FACW
3.			
4.			
5.			
6. 50% of total cover: 1.5%			
7. 20% of total cover: 0.6%			
	3 = Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. Unknown grass (mowed/unmowed)	75	Yes	(FACU)
2. Vicia sativa	15	No	FACU
3. Symphyotrichum novae-angliae	10	No	FACW
4. Symphyotrichum ericoides	10	No	FACU
5. Solidago canadensis	5	No	FACU
6. Asclepias syriaca	1	No	UPL
7. Phragmites australis	1	No	FACW
8. Dipsacus laciniatus	1	No	FACU
9. Cirsium arvense	1	No	FACU
10.			
11. 50% of total cover: 59.5%			
12. 20% of total cover: 23.8%			
	119 = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1. Vitis riparia	1	Yes	FAC
2.			
3.			
4.			
	1 = 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: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	12	x 2 =	24
FAC species	1	x 3 =	3
FACU species	109	x 4 =	436
UPL species	1	x 5 =	5
Column Totals:	123 (A)		468 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

Unknown grass (mowed) was assumed to be a non-wetland species and was assigned an indicator status of FACU for the calculation the the prevalence index.

Half of plot is mowed; half is the unmowed slope of the ditch adjacent to JJA Wetland 4.

Invasive plants (low): Cut-leaf teasel, common reed grass, Canada thistle, mugwort

SOIL

Sampling Point: JJA W-4-U

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
0-6	7.5 YR 3/2	100					Loam	
6-16	10 YR 4/1	75	7.5 YR 5/8	25%	C	M	Fine sand	
16-20	10 YR 4/4	100					Silty clay	Restrictive layer; soil saturated for 2" above clay
20" total								Non-native soil or re-worked native soil

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Silty clay

Depth (inches): 16"

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 15, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-5-U

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Fill slope along road Local relief (concave, convex, none): None Slope (%): 15%

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 01 min 14.16 sec Long: W 78 deg 46 min 57.71 sec Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) / Lakemont silt loam, 0%-3% slopes NWI classification: None

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

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

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

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

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

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

JJA W-5-U the upland plot associated with JJA Wetland 5. It is located on the mown fill slope of John James Audubon Parkway. Recent heavy thunderstorms (last three nights).

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes [ ]	No [X]	Depth (inches):
Water Table Present?	Yes [X]	No [ ]	Depth (inches): 11
Saturation Present? (includes capillary fringe)	Yes [X]	No [ ]	Depth (inches): 3

Wetland Hydrology Present? Yes [ ] No [X]

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

Remarks:

Water from recent heavy rains accumulated in 1"-2" crusher run under the soil in the fill slope, resulting in an elevated water table and saturated soil. However, this elevated water table and the resulting saturation of soil above it was a result of the layer of crusher run performing as designed and draining the roadbed. Therefore, it was determined that wetland hydrology was not present.

Soil pit located 4' from edge of pavement . A second soil pit was dug further from the road but it immediately filled with water.

VEGETATION – Use scientific names of plants.

Sampling Point: JJA W-5-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. Unknown grass (mowed)	75	Yes	(FACU)
2. Vicia sativa	10	No	FACU
3. Cirsium vulgare	1	No	FACU
4. Plantago major	1	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total over: 43.5%			
12. 20% of total cover: 17.4%			
	87 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
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: 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	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	87	x 4 =	348
UPL species	0	x 5 =	0
Column Totals:	87 (A)		348 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

Unknown grass (mowed) was assumed to be a non-wetland species and was assigned an indicator status of FACU for the calculation the the prevalence index.

SOIL

Sampling Point: JJA W-5-U

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10 YR 3/2	100					Clay loam	
3-8	7.5 YR 4/3	75	10 YR 5/6	15	C	M	Silty clay	with gravel/crusher run; non-native
			5Y 5/1	10	D	M		
8-15	------ (Crusher rock)						Road base	1"-2" crusher run
15" total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

Second soil pit attempted further from road but immediately filled with water.

Soil from 3"-8" is clay (hydric soil) that originated from the adjacent ditch at the base of the fill slope. The clay fill was used to cover the crusher run before it was covered with topsoil. Therefore, even though hydric soil used as fill is present, it was determined that the soil was not functioning as a wetland soil.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: September 16, 2021

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: JJA W-6-U

Investigator(s): Mike Gerber, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Fill slope along road Local relief (concave, convex, none): None Slope (%): 12%

Subregion (LRR or MLRA): LRR-L (101) Lat: N 43 deg 01 min 29.87 sec Long: W 78 deg 46 min 55.14 sec Datum: WGS84

Soil Map Unit Name: Cosad loamy fine sand (Cv) NWI classification: None

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

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

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

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

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

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

Community type: Forbland

JJA W-6-U the upland plot associated with JJA Wetland 6. It is located on the mown fill slope of John James Audubon Parkway. Recent heavy thunderstorms.

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: JJA W-6-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. Unknown grass (mowed)	100	Yes	?? (FACU)
2. Plantago major	3	No	FACU
3. Taraxacum officinale	1	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 52%			
12. 20% of total cover: 20.8%			
	104 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
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: 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	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	104	x 4 =	416
UPL species	0	x 5 =	0
Column Totals:	104 (A)		416 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

JJA W-6-U is located on the mown fill slope of John James Audubon Parkway.

Unknown grass (mowed) was assumed to be a non-wetland species and was assigned an indicator status of FACU for the calculation the the prevalence index.

Invasive species (trace): Spotted knapweed

SOIL

Sampling Point: JJA W-6-U

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	10 YR 3/3	100					Loam	
8-17	7.5 YR 3/2	100					Silty clay	Re-worked native clay with blocks of cinders/gravel (fill)
17" total								
								Soil is topsoil over re-worked native clay with fill (cinders/gravel)

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: August 3, 2022

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: NFB W-1-U

Investigator(s): Morgan George, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR-L (101) Lat: 42.98923783 Long: -078.82232113 Datum: NAD 1983

Soil Map Unit Name: Urban land (Ud) NWI classification:

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

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

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

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

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

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

Community type: Non-native grassland

NFB W-1-U is located east of Niagara Falls Blvd, south of Maple Road. The plot is in an excavated water collection basin that collects drainage water from parking lots and roads. Soil is fill material with large cobbles so no soil pit was dug (water collection basin is probably lined with cobbles).

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: NFB W-1-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. Lotus corniculatus	60	Yes	FACU
2. Corynephorus canescens	25	Yes	UPL
3. Hordeum jubatum	10	No	FAC
4. Rumex crispus	5	No	FAC
5. Persicaria maculosa	2	No	FAC
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 51%			
12. 20% of total cover: 20.4%			
	102 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. None			
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: 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	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	17	x 3 =	51
FACU species	60	x 4 =	240
UPL species	25	x 5 =	125
Column Totals:	102 (A)		416 (B)

Prevalence Index = B/A = 4.1

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

Mostly upland plants, with a few areas with wetland plants.

SOIL

Sampling Point: NFB W-1-U

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

Depth (inches): 2"

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

Remarks:

No native soil. All fill material with large cobbles and large pieces of rubber. Cobbles are 2" depth so no soil pit dug.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: August 3, 2022

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: NFB W-2-U

Investigator(s): Morgan George, Robert Ott Section, Township, Range:

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

Subregion (LRR or MLRA): LRR-L (101) Lat: 42.98760043 Long: -078.82232290 Datum: NAD 1983

Soil Map Unit Name: Urban land (Ud) NWI classification:

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

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

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

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

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

Remarks: (Explain alternative procedures here or in a separate report.)
Community type: Non-native grassland

NFB W-2-U is located east of Niagara Falls Blvd, south of Maple Road. The plot is in the bottom of an excavated water collection basin lined with cobbles. Soil is problematic because the water collection basin is lined with cobbles so a soil pit was not dug.

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: NFB W-2-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. Lotus corniculatus	80	Yes	FACU
2. Hordeum jubatum	60	Yes	FAC
3. Sonchus arvensis	5	No	FACU
4. Daucus carota	1	No	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 73%			
12. 20% of total cover: 29.2%			
	146 = Total Cover		
Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	85	x 4 =	340
UPL species	1	x 5 =	5
Column Totals:	146 (A)		525 (B)

Prevalence Index = B/A = 3.6

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

SOIL

Sampling Point: NFB W-2-U

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

Depth (inches): 0" (surface)

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

Remarks:

Problematic soil. The retention basin where plot NFB W-2-U is located is lined with cobbles so a soil pit was not dug.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Metro Rail Expansion Project City/County: Amherst / Erie County Sampling Date: August 3, 2022

Applicant/Owner: Niagara Frontier Transportation Authority State: New York Sampling Point: NFB W-3-U

Investigator(s): Morgan George, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Water collection basin Local relief (concave, convex, none): Concave Slope (%): 25%

Subregion (LRR or MLRA): LRR-L (101) Lat: 42.99003681 Long: -078.81681229 Datum: NAD 1983

Soil Map Unit Name: Urban land (Ud) NWI classification:

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

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

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

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

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

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

Community type: Non-native grassland

NFB W-3-U is located east of Alberta Drive, south of Maple Road. The wetland is in an excavated water collection basin that collects drainage water from parking lots and roads.

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: NFB W-3-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acre rubrum	40	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. Unknown mowed grass	90	Yes	
2. Plantago major	1	No	FACU
3. Fragaria vesca	1	No	FACU
4. Taraxacum officinale	1	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11. 50% of total cover: 50.5%			
12. 20% of total cover: 20.2%			
	101 = Total Cover		
Woody Vine Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

Vegetation is problematic because the dominant herb is a mowed grass that couldn't be identified.

SOIL

Sampling Point: NFB W-3-U

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3"	10 YR 3/2	100					Loam	
3-16"	10YR 3/2	98	5YR 4/6	2	C	M	Clay	
16" Total								

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (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: Metro Rail Expansion Project City/County: Amherst/Erie County Sampling Date: October 11, 2023

Applicant/Owner: Niagara Frontier Transportation Authority State: NY Sampling Point: MR-W1-U

Investigator(s): Rachele Anthony, Robert Ott Section, Township, Range:

Landform (hillslope, terrace, etc.): Top of rounded ridge (lawn) Local relief (concave, convex, none): Convex Slope (%): 0

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 42 deg 59 min 27.21 sec N Long: 78 deg 48 min 18.98 sec W Datum: WGS 1984

Soil Map Unit Name: Ilion silt loam (In); Churchville silt loam, 0-3% slopes (CoA); Schoharie silt loam, 0-3% slopes (SaA) NWI classification:

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

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

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

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

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

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

Community type: Select from list

Mown lawn

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 [ ] Depth (inches):

Water Table Present? Yes [ ] No [ ] Depth (inches):

Saturation Present? (includes capillary fringe) Yes [ ] No [ ] 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: MR-W1-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
= Total Cover			
Sapling/Shrub Stratum (Plot size:)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
= Total Cover			
Herb Stratum (Plot size: 5' radius)			
1. Mown grass	95	Yes	FACU
2. Taraxacum officinale	3	No	FACU
3. Plantago major	2	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
= Total Cover			
Woody Vine Stratum (Plot size:)			
1. None			
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: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

Mown grass assumed to be FACU

SOIL

Sampling Point: MR-W1-U

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10TR 4/3	100					Silty clay loam	1"-2" ribbon, smooth
4-15	5YR 4/3	100					Silty clay	Smooth red clay

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

APPENDIX D

Qualifications

Robert Allen Ott, PhD

Senior Ecologist/Senior Environmental Scientist

EDUCATION

PhD, Forest Ecology, University of Alaska, Fairbanks

MS, Environmental and Forest Biology, SUNY ESF

BS, Resource Management & Environmental and Forest Biology, SUNY ESF (Dual Major)

PROFESSIONAL CERTIFICATIONS

USACE Wetland Training, 2016, Certificate #7922

PROFESSIONAL AFFILIATIONS

Cooperating Forester, NYSDEC

PROFESSIONAL EXPERIENCE

33 years

SUMMARY OF EXPERIENCE

Mr. Ott's expertise includes writing natural resource management plans, conducting natural resource inventories including wetland delineations, invasive species surveys, threatened and endangered species reviews, biodiversity studies, forest management, forest health assessments, riparian zone management, and plant and forest ecological assessments. He has worked as a Technical Service Provider to the USDA and Cooperating Forester with the NYSDEC. Mr. Ott is fully trained in wetland delineation in accordance with the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual. He assists in the management and coordination of Watts' ecological/habitat/invasive species/ wetland work.

NYPA/NYSCC, Pedestrian Bridge at Brockport Guard Gate, Brockport, New York - As part of the Reimagine the Canals portfolio, Watts assisted on this multi-consultant team with the environmental assessments, documentation and permitting in support of this project. The focus of the design is to create a pedestrian bridge that spans the Erie Canal and connects the Empire State Trail on the north with the SUNY Brockport Campus on the south. Mr. Ott was responsible for the wetland delineation and reports, invasive species review and assisting in the preparation of the SEQR/NEPA Environmental Assessment and associated environmental permits.

NFTA, Amherst-Buffalo Corridor Light Rail Extension Project, Erie County, New York - The Niagara Transportation Authority (NFTA) as the Buffalo Light Rail Transit System (LRRT) is completing the environmental review process required under NEPA and SEQR, along with up to 30% preliminary design and engineering for the proposed Amherst-Buffalo Corridor Light Rail Extension. In 2017, the NFTA Board of Commissioners accepted a recommended alternative alignment resulting from the Transit Options Amherst-Buffalo Alternatives Analysis Study. The objectives of the study were to (1) complete the environmental review process of the proposed Amherst-Buffalo Light Rail Extension required under NEPA and SEQR, (2) support the NFTA in coordinating with and seeking FTA concurrence in each step of the FTA Project Development Process, and (3) complete up to 30% design and engineering on the proposed Amherst-Buffalo Light Rail Extension to support the environmental review and provide the documents required by FTA under the Final Guidance for the Capital Investment Grant (CIG) Program to seek entry into the engineering phase. As a subconsultant, Watts is providing environmental services related to groundwater, stormwater, wetlands, and natural resources. Mr. Ott was responsible for the wetland delineation and reports, describing surface water resources, assessment of natural resources, assessing invasive species, and assisting in the preparation of the SEQR/NEPA Environmental Impact Statement and associated environmental permits.

Village of Andover, NYSDOT LAFAP North Main Street Bridge Reconstruction Project, Allegany County, New York – Watts as a subconsultant completed the environmental assessments, documentation and permitting in support of this project. The focus of the design was to construct a new bridge that spans East Valley Creek and connects Rochambeau Avenue on the north to State Route 21 to the south. Mr. Ott was responsible for the wetland delineation and reports, describing surface water resources, invasive species review, bridge bat survey, and assisting in the preparation of the SEQR/NEPA Environmental Assessment and associated environmental permits.

Route 9W over CSX/CP Rail, Town of Bethlehem, Albany County, New York - Watts is a sub-consultant regarding the proposed reconstruction of an approximate 1.0-mile section of Route 9W between Old Town Road/Cottage Lane to just south of Pictuay Road in the Town of Bethlehem, Albany County, New York. Included in this project is the reconstruction of a Route 9W bridge that crosses over the CSX/CP railroad. Watts is responsible for identifying existing environmental conditions associated with the location of the project and addressing potential environmental impacts. Mr. Ott was responsible for the wetland delineation and reports, describing surface water resources, invasive species review, assessment of natural resources, and a bridge bat survey.

NYSDOT RDSA, D038009, PIN 7SUP.13, NYS Route 3 between Childwold and Piercefield, St. Lawrence County, New York – As a subconsultant, Watts completed the environmental screenings

and studies in support of the development of the Design Report for this project. Environmental work included social, economic, and environmental considerations; review of general ecology, detailed wetland field delineations and reporting, documentation of invasive species, and assessment of threatened and endangered species; surface water evaluation; hazardous waste and asbestos investigations; and preparation and submission of all environmental permits and approvals. Mr. Ott was responsible for the wetland delineation and reports, describing surface water resources, assessment of natural resources, and the invasive species review.

CR 26 Bridge Replacement (BIN 3330740) PIN 6755.56, Village of Belfast, Allegany County, New York – As a subconsultant, Watts completed the environmental screenings and studies in support of the development of the Design Report for the project. Environmental work included social, economic, and environmental considerations; review of general ecology, detailed wetland field delineations and reporting, documentation of invasive species, and assessment of threatened and endangered species; surface water evaluation; hazardous waste and asbestos investigations; and preparation and submission of all environmental permits and approvals. Mr. Ott was responsible for the wetland delineation and reports, describing surface water resources, assessment of natural resources, and the invasive species review.

NYSDOT RDSA, D038021, PIN 2023.34, Replacement of the Route 69 Bridge (BIN 1009919) and Main Street Bridge (BIN 2255640) over Sauquoit Creek, Villages of Whitesboro, Yorkville, and New York Mills, Oneida County, New York - As a subconsultant, Watts completed the environmental screenings and studies in support of the development of the Design Report for the project. Environmental work included social, economic, and environmental considerations; review of general ecology, detailed wetland field delineations and reporting, documentation of invasive species, and assessment of threatened and endangered species; surface water evaluation; hazardous waste and asbestos investigations; and preparation and submission of all environmental permits and approvals. Mr. Ott was responsible for the wetland delineation and reports, describing surface water resources, assessment of natural resources, invasive species review, and a bridge bat survey.

Invenergy Bull Run Wind Energy Project, Towns of Altona, Clinton, Ellenburg, and Mooers, Clinton County, New York – As a subcontractor, Watts assisted with the field delineation of wetlands and surface water resources across approximately 30,000 acres for a proposed wind energy project. Mr. Ott's responsibility was to serve as a lead wetland delineator, to identify and describe surface water resources, and to perform quality assurance and quality control of the wetlands he identified and described.

Hunt Street Bridge Replacement (BIN 3329200) Over Bergholtz Creek, PIN 5764.27, Town of Wheatfield, Niagara County, NY – Watts completed the environmental assessments, documentation and permitting in support of this project. The focus of the design was to construct a new bridge on Hunt Street that spans Bergholtz Creek in the Town of Wheatfield. Mr. Ott assisted in the preparation of the SEQR/NEPA Environmental Assessment and associated environmental permits.

I-81 Viaduct, D031085 (PIN 3501.60), City of Syracuse, Onondaga County, NY– Watts provided environmental services including asbestos, noise, air, soil, and water studies. This project is for providing scoping and preliminary design and engineering services (Phases I-IV) for I-81 Viaduct replacement or new urban arterial. Mr. Ott assisted with a Phase II Environmental Assessment, analyzing soil cores in the field, and collecting soil and water samples.

Rochester Schools Modernization Program, Strategic Planning Services for Phase 3, Rochester, NY – As part of the $1.2 billion Rochester Schools Modernization Program, the Rochester Joint Schools Construction Board is planning for the third phase of school modernizations. Watts is leading the planning team and responsible for the Phase 3 Strategic Plan that will serve as a roadmap for the next phase of school renovation and reconstruction projects valued at $615 million. A full facility assessment including educational planning, regulated building materials consulting, environmental assessments and overall project management services was performed for each of the District's 33 schools that have not been modernized. Mr. Ott was responsible for conducting the SEQR Environmental Assessment for six schools, to date.

Fassett Road Drainage Project, Elmira, Chemung County, NY / PINs 6LC1.01.102, 6LC2.01.102, 6LC3.01.102 - The project involves the installation of a new drainage system throughout the project limits, pavement rehabilitation or reconstruction, sidewalk replacement, and replacement of the existing outlet to Hoffman Brook. Mr. Ott is responsible for the wetland delineation and reports, assessment of natural resources, assessment of invasive species, and assisting in the preparation of the SEQR/NEPA Environmental Assessment and associated environmental permits.

Replacement of New Albion Culverts #46 and #47, Town of New Albion, Cattaraugus County, NY– Work involves the replacement of New Albion Culvert 46 (NE46) over Little Valley Creek and New Albion Culvert 47 (NE47) over an unnamed branch of Little Valley Creek that are in poor condition and are currently "R"-restricted. Watts will assist with environmental assessments, wetland delineation, permitting, Stormwater Pollution Prevention Plans (SWPPP) if required, sediment and soil erosion plans, and Work Zone Traffic Control (WZTC) plan development. Mr. Ott conducted bridge bat surveys and a review of threatened and endangered species.

Design – Culvert Rehabilitation/Replacement – Region 5 D038153 (PIN 5LC1.01 / PIN 5LC1.11), Western New York –Watts assisted with assessing environmental and natural resource issues related to the replacement of 16 culverts across western New York. Mr. Ott is responsible for conducting wetland assessments, assessing natural resources, assessing invasive species, gathering natural resource and cultural resource information required for a SEQR/NEPA Environmental Assessment, and report writing.

US Route 9 at Route 146 Intersection Safety Enhancements and Reconstruction of NY Route 146 (PIN 1085.52.121), Saratoga County, NY –Work involves replacing sidewalks, re-paving roads, adding a turning lane, and adding an additional traffic lane. Watts will assist with environmental assessments, wetland delineation, and a noise study. Mr. Ott is responsible for assessing natural resources, assessing invasive species, conducting a wild lupine survey for the endangered Karner blue butterfly, conducting a wetland assessment and delineation, gathering natural resource information required for a SEQR/NEPA Environmental Assessment, and report writing.

Kensington Expressway Project, Erie County, NY, Region 5 D038277 (PIN 5512.52.123) –Watts environmental services includes providing air and noise assessments, wetland assessments, natural resource assessments, and assisting in the preparation of the SEQR/NEPA Environmental Assessment and associated environmental permits. Mr. Ott was responsible for the wetland assessment, assessing invasive species, assessment of natural resources, and assisting in the preparation of the SEQR/NEPA Environmental Assessment and associated environmental permits.

Route 3 – Childwold to Piercefield, Design Services (RDSA), PIN 7SUP.13, L038007-005, NYSDOT D038009-02 –Watts conducted a Preliminary Design (Phases I-IV), prepare a Draft Design Report/Final Design Report (DDR/FDR) in accordance with the New York State Department of Transportation Project Development Manual, and complete the final design and preparation of the Plans Specifications and Estimates (PS&E) Package. Mr. Ott was responsible for the wetland delineation and reports, describing surface water resources, assessment of natural resources, assessing invasive species, and assisting in the preparation of the SEQR/NEPA Environmental Assessment and associated environmental permits.

Prior to Watts, Mr. Ott's experience includes:

Forest Ecologist & Forester, Gowanda, New York - Sole proprietor of Zoar Valley Forestry and Ecological Consulting. Mr. Ott prepared natural resource management plans; conducted natural resource inventories (including mapping and describing wetlands, identifying invasive species, identifying rare/endangered species, characterizing wildlife habitat); layout and administration of timber sales; conducted site inspections to provide technical assistance to landowners; located, marked, and maintained property boundaries; conducted timber appraisals; and performed timber trespass investigations. He also offered the following services: conducting wetland delineations according to the U.S. Army Corps of Engineers wetland delineation protocol; designing and conducting monitoring projects related to forest management and forest ecology; conducting literature reviews and summarizing the results; and performing analyses of ecological data. Mr. Ott has also worked as a Cooperating Forester with the New York State Department of Environmental Conservation and a Technical Service Provider for forestry and forest management planning for the USDA Natural Resources Conservation Service.

Forest Ecologist & Freelance Photographer, Bennington, Vermont - Sole proprietor of RAO Ecological Consulting/Photographic Services. Designed and conducted research, monitoring, and survey projects related to forest management, forest health, and forest ecology; developed forest/wildlife management plans; conducted and synthesized literature reviews; and analyzed ecological data. He also took photographs for publication in books, brochures, reports, and other information media.

Forest Health Program Coordinator, Alaska Department of Natural Resources, Division of Forestry, Fairbanks, Alaska - Was responsible for managing the statewide Forest Health Program (FHP); overseeing services to state, municipal, and private landowners; and coordinating forest health-related activities with partner agencies. Administered the FHP budget; acquired and administered grant funds; and supervised an entomologist, a GIS specialist, and a technician. Also designed and conducted research and monitoring

projects to deliver program services in silviculture, entomology, forest pathology, forest ecology, and integrated pest management to maintain and improve the health of Alaska's forests.

Research Forester, Tanana Chiefs Conference, Forestry Program, Fairbanks, Alaska - Was responsible for implementing a research program that addressed forest management issues on Native lands in Interior Alaska, emphasizing forest health, riparian zone management, silviculture, and hazard fuels management. Was also responsible for dissemination of research findings and for assisting with management of Native lands in Interior Alaska.

Ecological Consultant to the USDA Forest Service, Pacific Northwest Research Station, Forestry Sciences Laboratory (FSL), Juneau, Alaska - Provided 3 reports to FSL: (1) Small-scale natural disturbance regimes in temperate rainforests of southeast Alaska: description and management importance; (2) Interpretation of wind and treefall patterns at the site- and landscape-level in the forests of southeast Alaska: importance, techniques, and application; and (3) Dynamics of canopy gaps and their influence on light attenuation, species richness and composition, and tree regeneration in the forests of southeast Alaska. These reports were requested by FSL to provide timely information relevant to development of the 1997 Tongass National Forest Land and Resource Management Plan.

Special Term Appointee, Environmental Assessment Division, Argonne National Laboratory, Argonne, Illinois - Was a member of a team responsible for conducting a biodiversity assessment of Clear Air Station, Alaska. Mr. Ott was responsible for characterizing plant communities and assisted in conducting plant inventories, collecting herbarium specimens, and determining the natural disturbance regime (fire) of the Station.

Ecological Consultant to the USDA Forest Service, Tongass National Forest, Chatham Area, Sitka, Alaska - Constructed landscape-level wind pattern maps of forest planning areas; conducted research comparing the effects of clearcutting and large-scale natural blowdown on plant species diversity and successional pathways; and characterized the effect of wind on riparian habitats as part of an Anadromous Fish Habitat Assessment and Report to Congress.

Michael Gerber, PG

Senior Geologist

EDUCATION

Bachelor of Science, Geological Sciences, SUNY at Buffalo

Masters in Secondary Education, Arizona State University

PROFESSIONAL LICENSES

Professional Geologist, AZ

PROFESSIONAL CERTIFICATIONS

OSHA 40-Hour HAZWOPER Training and Annual 8-Hour Refreshers

OSHA 10-Hour Construction Training

PROFESSIONAL EXPERIENCE

20 years

SUMMARY OF EXPERIENCE

Mr. Gerber has been providing environmental consulting services for over 20 years, ranging from hazardous waste site assessments and remediation to wetland delineation and mitigation. He has been assisting with wetland assessments and delineations requiring federal (US Army Corps of Engineers) and State (NYSDEC) jurisdictional determination, as well as assessment of project impacts and wetland/stream mitigation design for unavoidable impacts. Some of his wetland experience includes:

New York Power Authority Powerline Vegetation Inventory, Various areas throughout New York – Watts assisted the prime consultant in performing compatible and non-compatible vegetation inventories along NYPA powerline throughways. Mr. Gerber was on the team performing the vegetation inventories, invasive species surveys, identification of wetland areas and pollinator surveys. These inventories took place through various habitats throughout New York State.

Reconstruction of Beebe Road from Bridge over Hopkins Creek to Wilson-Burt Road, Wilson, NY - This highway project involved full-depth reconstruction, replacement of several cross culverts, and widening the pavement cross-section to meet modern safety standards along approximately 3.0 miles (4.8 km) of Beebe Road. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, floodplain evaluation, and farmlands impacts) for the DAD, and assisted with environmental permitting and asbestos specifications during final design. Watts also performed a stream survey and wetland assessment and delineation in this area where wetlands are expected to be a major consideration of the project. Mr. Gerber was the Project Scientist that assisted in the completion of the stream survey and wetland delineation.

Cedar Street Bridge over Tonawanda Creek, Town of Newstead & Royalton, NY – Watts assisted Niagara County with this Locally Administered Federal Aid project to replace the subject bridge by conducting the environmental assessment including preliminary screenings of cultural resources, endangered species, HW/CMA, asbestos, water resources, and wetlands; and assembled a permit application on a compressed schedule for inclusion of the project under ARRA funding. The bridge was replaced with minimal temporary disturbance to the banks of Tonawanda Creek. Watts also provided permitting and regulatory consulting services during design, bidding, and construction phases of the bridge replacement project. Mr. Gerber was the Project Scientist that assisted with environmental studies and wetland delineation.

Allen Road Bridge Replacement over Spencer Brook BR 27-2, Sardinia, NY – Watts completed environmental studies and assessments in support of the design report for the replacement of the Allen Road Bridge (BR 27-2). The work was summarized in the environmental chapter of the Final Design Report. Work is entirely county funded. There is no Federal or State funding, therefore, NEPA documentation does not apply. Mr. Gerber was the Project Geologist responsible for completing the environmental studies, conducting the wetland delineation.

Van Ingen Drive Bridge over Neuman Creek, Chestnut Ridge Park, Orchard Park, NY – Watts completed environmental studies and assessments in support of the design report for the replacement of this bridge located in Chestnut Ridge Park. Mr. Gerber was the Project Scientist responsible for completing the environmental studies, conducting the wetland delineation and preparing the design report and HW/CM report.

Trevett Road Bridge Replacement, Town of Springville and Collins, NY – Watts completed the environmental and permitting work for this locally funded project. SEQR and stream disturbance needed to be addressed. Mr. Gerber was the Project Scientist responsible for completing the environmental studies, conducting the wetland delineation and the HW/CM survey onsite and preparing the design report and HW/CM report.

I-90 from MP 378.2 to 393.7, Pavement Rehabilitation, Buffalo Division D213654, Buffalo, NY - Watts completed environmental studies, including a hazardous waste assessment and wetland delineation/wetland mitigation design in support of the reconstruction of approximately 15 miles of the mainline New York State Thruway from MP 378.20 to MP 393.7 in the Buffalo Division. Watts was also responsible for a detailed estimate. Mr. Gerber assisted with wetland delineation, ecological surveys and wetland mitigation studies.

Rt. 77 Rehabilitation: US 20 to NYS Thruway (I-90), Attica, NY - This highway project involved pavement, safety, capacity, drainage and pedestrian improvements along approximately 7.5 miles (12 km), in the Towns of Darien and Pembroke, Genesee County. Watts was responsible for general ecology and endangered species study; wetlands screening and assessment; the hazardous waste/ contaminated materials screening; and an asbestos assessment. Mr. Gerber was the Project Scientist that assisted with the wetland screening and assessment and endangered species study.

Reconstruction of I90 from M.P. 427.7 to M.P. 430.4, Erie County, NY - Watts prepared a pavement evaluation and developed rehabilitation and reconstruction alternatives for the segment of Interstate 90 (I-90), the New York State Thruway, from Milepost (MP) 427.7 to MP 430.40 and performed a field delineation to determine the federal and state jurisdictional wetland boundaries of all wetlands in the project area. Watts' was also responsible for an air quality study; a general ecology and endangered species study; surface water identification; a hazardous waste/contaminated materials screening; a preliminary asbestos assessment, and an energy usage analysis. Mr. Gerber assisted with the wetland delineation and ecological studies.

Endangered Species Survey for the EW 20 Rochester 3rd Track Wetland Delineation, Rochester, NY - This project involved an endangered species survey for the EW 20 Rochester 3rd Track Wetland Delineation and Report of the identified segment of the Route 531 Corridor. Watts provided assistance with the field survey. Mr. Gerber assisted with the endangered species and habitat survey which included plants and animals including Bog turtle and Eastern Massasauga rattlesnake**.**

LaSalle Waterfront Park Master Plan, Niagara Falls, NY - Watts performed an ecological assessment at the LaSalle Waterfront Park site located on the Niagara River shoreline. Watts developed the scope of services to support the preparation of a Park Master Plan for the City of Niagara Falls. Watts provided baseline documentation of existing conditions by completing an inventory of ecological resources and problems in the area and assessed the onsite terrestrial and aquatic habitat values. Recommendations were provided for the proposed park's site development within the valuable aquatic and avian ecology of the Niagara River, and identified potential for future habitat restoration projects. Mr. Gerber assisted with the ecological resources inventory and assessed the terrestrial and aquatic values of the proposed park.

I-90 from MP 378.2 to 393.7, Pavement Rehabilitation, D213654, Buffalo, NY - Watts completed environmental studies, including a hazardous waste assessment and wetland delineation/wetland mitigation design in support of the reconstruction of approximately 15 miles of the mainline New York State Thruway from MP 378.20 to MP 393.7 in the Buffalo Division. Mr. Gerber assisted with the environmental studies during preliminary and final design. He assisted with the wetland delineation of the entire project corridor and 5-acre proposed mitigation site and provided consulting services and required documentation for the Section 404/401 permit application package.

Robert Moses Parkway South Segment, "Riverway", Niagara Falls State Park, D003553, Niagara Falls, NY - Watts provided environmental and engineering services to NYS Parks for the removal of the Robert Moses Parkway from the historic Niagara Falls State Park and subsequent replacement with the Riverway, a pedestrian-friendly park road with bike and ped trails, pond, entry feature and access between the City of Niagara Falls and the Niagara River. Landscaping concepts were developed to evoke the original Olmsted-Vaux park plan by reclaiming parkland from highway use and restoring recreational, cultural, and natural habitat functions of the Park. Environmental issues handled by Watts for Project Scoping and Design Report/ Environmental Assessment included ecology, water resources, contaminated materials, air/noise/energy, construction impacts, and permits and procedures. Mr. Gerber assisted with the environmental work.

NY Route 198 (Scajaquada Expressway) Corridor Study, Buffalo, NY- Watts, as part of a multi-consultant team, participated in the Environmental Impact Study and Design commissioned by the NYSDOT to determine the feasibility of downgrading the Scajaquada Expressway, NY Route 198, from an expressway to an arterial. The study encompassed the entire 3.2 miles of expressway, from the I-190 to the Kensington Expressway, NY Route 33 and an eight-square mile network of area highways contributing to the expressway traffic. Watts performed noise and air studies; a general ecology and endangered species study; wetlands screening and delineation; hazardous waste/contaminated

materials screening, and an asbestos assessment. Mr. Gerber assisted with wetland identification, tree inventory and ecological assessments.

OGS Rehabilitate Clear Lake Dam Contract Number: 44864, Collins, NY - The New York State Office of General Services (NYSOGS) is addressing the deficiencies of the dam at Clear Lake in North Collins, Erie County to comply with current NYSDEC dam safety regulations. Watts' tasks include Erosion and Sediment Control drawings and the Storm Water Pollution Prevention Plan. Mr. Gerber assisted with ecological assessments, wetland delineation, preparation of environmental permit applications, and regulatory consultation.

I-390/490/NY 31 Interchange Improvement Project, PIN 4390.54, Town of Gates, Monroe County, NY – This project involves the upgrades to the interchange of I-390/I-490 and NY 31 to improve the safety and flow of traffic in this area outside of Rochester, NY. Upgrades include a new two-lane I-390 Southbound flyover over the main interchange, which includes the construction of three bridges, reconfiguration of I-390 and I-490 Westbound ramp, partial re-alignment of an I-390 Southbound ramp, widening of NY 31 and installation of noise barriers. Mr. Gerber assisted the Wetland Scientist responsible for completing the habitat and wetland assessment, wetland delineation report, quantification of impacts and identifying mitigation requirements.

NYSDOT RDSA, Replacement of BIN 1012040, NY Route 430 over Dewittville Creek, PIN 5763.01, PIN S119.18, Town of Chautauqua, Chautauqua County, NY – This project involves the complete replacement of the bridge over Dewittville Creek in the Town of Chautauqua for the NYSDOT. Mr. Gerber was responsible for completing the wetland identification, ecological and habitat surveys and invasive species survey for the work area.

EDUCATION

Bachelor of Science, Wildlife Conservation and Management, Missouri State University, 2018

Master of Science, Biology, College of Natural and Applied Sciences, Missouri State University, 2021

PROFESSIONAL CERTIFICATIONS

IACUC Researcher-Wildlife Certification

Animal Care and Use- IACUC Community Member

Water Quality Monitoring Volunteer Training

Wetland Delineation Training Course

PROFESSIONAL EXPERIENCE

5 years

Morgan George

Ecologist

SUMMARY OF EXPERIENCE

NYSDOT RDSA, D038009, PIN 7SUP.13, NYS Route 3 Childwold/Piercefield, St. Lawrence County, NY - *As a subconsultant Watts completed the environmental screenings and studies in support of the development of the Design Report for this project. Environmental work included social, economic, and environmental considerations; review of general ecology, detailed wetland field delineations and reporting, documentation of invasive species, and assessment of threatened and endangered species; surface water evaluation; hazardous waste and asbestos investigations; and preparation and submission of all environmental permits and approvals. Mrs. George was responsible for the wetland delineation and reports, invasive species review, assisting in the preparation of the reports and preparation of Adirondack Park Agency permits.*

NYSDOT RDSA, D038021, PIN 2023.34, Replacement of the Route 69 Bridge (BIN 1009919) and Main Street Bridge (Bin 2255640) over Sauquoit Creek, Oneida County, NY - *As a subconsultant Watts completed the environmental screenings and studies in support of the development of the Design Report for this project. Environmental work included social, economic, and environmental considerations; review of general ecology, detailed wetland field delineations and reporting, documentation of invasive species, and assessment of threatened and endangered species; surface water evaluation; hazardous waste and asbestos investigations; and preparation and submission of all environmental permits and approvals. Mrs. George was responsible for the wetland delineation and reports, invasive species review and assisting in the preparation of the reports.*

Niagara County Department of Public Works, Hunt Street over Bergholtz Creek, BIN 3329200, EPN 2126, Niagara County, NY - *As Prime consultant Watts completed the environmental screenings and studies in support of this locally funded bridge replacement project. All State and Federal requirements will be followed in the development of the Design Report for this project. Environmental work includes assessment of various environmental considerations; review of general ecology, detailed wetland field delineations and reporting, documentation of invasive species, and assessment of threatened and endangered species; surface water evaluation; hazardous waste and asbestos investigations; and preparation and submission of all environmental permits and approvals. Mrs. George was responsible for the wetland delineation and reports, invasive species review, cultural resources review, assisting in the preparation of the reports and preparation of the joint application.*

CR 26 Bridge Replacement (BIN 3330740) PIN #6755.56, Belfast, Allegany County, NY - As a subconsultant Watts completed the environmental screenings and studies in support of the development of the Design Report for this project. Environmental work included social, economic, and environmental considerations; review of general ecology, detailed wetland field delineations and reporting, documentation of invasive species, and assessment of threatened and endangered species; surface water evaluation; hazardous waste and asbestos investigations; and preparation and submission of all environmental permits and approvals. Mrs. George was responsible for the wetland delineation and reports, invasive species review and assisting in the preparation of the reports.

While working for a prior employer, Mrs. George completed the following assignments:

Wetland Delineation - *Delineation of wetlands, identification of plants, hydrological indicators, and soil sampling. Independent field work to collect data for wetland delineation reports, analysis of data collected and preparation of wetland delineation reports. Mapping of field-delineated wetlands.*

Wetland Monitoring and Mitigation - *Assist with wetland monitoring and mitigation plan writing according to federal and state regulations. Assisted clients with understanding rules and regulations regarding wetland areas and develop plans for future monitoring and mitigation when necessary.*

Invasive Species Monitoring Plan - *Develop plans for the management and control of invasive plant species in degraded habitats. Research methods of control and define limits of herbicide use and mechanical control of each species. Assist with production of planting plans for native species following removal of invasives.*

Invasive Species Mapping -*Field mapping of invasive plant species using GPS mapping equipment. Analysis of data collected and production of maps representing areas of infestation dependent on density of species.*

Morgan George

Ecologist

Habitat Assessment-*Collection of baseline ecological data for sites. Inventory of existing habitats and cover types across large sites. Field mapping habitat types using GPS mapping equipment and creation of maps classifying habitat types.*

Raptor Surveys -*Field surveys targeting nocturnal and diurnal birds of prey (raptors). Observations of behavior, flight path and potential nesting areas. Analyze data collected and creation of maps recording sightings and flight paths.*

Bird Surveys -*Observation of avian life within managed wildlife habitat areas. Collection of behavioral data and other observational data such as flight path. Identification of birds to species level.*

Mammal Surveys - *Observational and trapping surveys of large and small mammals. Observational studies of large animals in areas managed for wildlife habitat. Trapping surveys of small mammals conducted in areas managed for wildlife habitat. Animals were trapped using live traps, identified to species level, and released.*

Herpetological Surveys - *Observational survey of reptiles within areas managed for wildlife habitat. Surveys included active searches as well as passive observation.*

Resource Assessment and Management (RAM) Survey - *Field data collection of river characteristics such as high-water mark, sediment composition, width, flow rate, and river bottom composition. Work included sampling of fishes using electrofishing methods and identification of fishes to species level.*

Rachele Anthony

Environmental Scientist

EDUCATION

Bachelors of Science in Environmental Science, Canisius College

PROFESSIONAL CERTIFICATIONS

USACOE Wetland Delineation and Regional Supplement Training, 08/2023

Asbestos Project Monitor Initial Course, 08/2023

CPR / AED Training, 06/2023

OSHA 40 Hour HAZWOPER Training, 06/2023

Terrestrial and Aquatic Invasive Species Management Trainings, 08/2022

Hot Work Training, 06/2021

QPR Training, 08/2019

PROFESSIONAL EXPERIENCE

1 year

SUMMARY OF EXPERIENCE

Ms. Anthony is starting out her Environmental Scientist career as a recent graduate with course highlights in Conservation Biology, Field Ecology, Wetland Ecology, Environmental Analytical Chemistry, Hydrology, Environmental Health, Environmental Sociology, Environmental Policy, Environmental Ethics, Geology, Urban Ecology, and Ornithology. Her professional experience includes an Environmental Project Assistant position where she was responsible for reporting, client interactions, and assisted certified mold, lead, and asbestos inspectors during appointments. At Watts, Ms. Anthony is responsible for assessing natural resources – including habitat/general ecology, invasive species, threatened and endangered species, and wetlands (including wetland delineations). She is also responsible for report writing, which include assessments of hazardous materials and environmental resources. Ms. Anthony is a certified project monitor/air sampler allowing her to assist with project concerning asbestos abatement.

CR 26 Bridge Replacement (BIN 3330740), PIN 6755.56, Village of Belfast, Allegany County, New York – County Road 26 Bridge, constructed in 1974, is undergoing a replacement with a new three-span, multi-girder structure supported on concrete abutments. Watts completed the environmental screenings and studies in support of the development of the Design Report for the project. Environmental work included social, economic, and environmental considerations; review of general ecology, detailed wetland field delineations and reporting, documentation of invasive species, and assessment of threatened and endangered species; surface water evaluation; hazardous waste and asbestos investigations; and preparation and submission of all environmental permits and approvals. Ms. Anthony was responsible for preparing the Project Submittal Package for cultural resources and the Joint Application for construction.

Culvert Rehabilitation/Replacement, NYS Department of Transportation D038153 PIN 5LC1.01., Various Locations, Region 5, NY - As a subconsultant, Watts will assist with assessing environmental and natural resource issues related to the replacement of 16 culverts across western New York. Ms. Anthony is one of the scientists responsible for conducting wetland assessments, assessing natural resources, assessing invasive species, conducting Bridge Bat surveys, gathering natural resource and cultural resource information required for a SEQR/NEPA Environmental Assessment, and report writing.

Fassett Road Drainage Project, Elmira, Chemung County, NY - PINs 6LC1.01.102, 6LC2.01.102, 6LC3.01.102– Watts is a project partner to Labella Associates on this contract. The project involves the installation of a new drainage system throughout the project limits, pavement rehabilitation, or reconstruction, sidewalk replacement, and replacement of the existing outlet to Hoffman Brook. The existing outlet to Hoffman Brook is a 36" pipe that will likely be replaced with 2 – 36" pipes or a small concrete box structure. Ms. Anthony assisted with wetland delineation, assessment of natural resources, and assessment of invasive species.

US Route 9 at Route 146 Intersection Safety Enhancements and Reconstruction of NY Route 146 (PIN 1085.52.121), Saratoga County, NY –Work involves replacing sidewalks, re-paving roads, adding a turning lane, and adding an additional traffic lane. Watts will assist with environmental assessments, wetland delineation, and a noise study. Ms. Anthony assisted with the assessment of natural resources, assessment of invasive species, conducting a wild lupine survey for the endangered Karner blue butterfly, conducting a wetland assessment and delineation, and gathering natural resource information required for SEQR/NEPA Environmental Assessment.

Kensington Expressway Project, Erie County, Region 5 DO38277, Buffalo, NY – Watts is a project partner to Labella Associates on this contract. Watts' environmental services include providing air and noise assessments, wetland assessments, natural resource assessments, and assisting in the preparation of the SEQR/NEPA Environmental Assessment and associated environmental permits. Ms. Anthony assisted with assessing invasive species and assessing natural resources. Ms. Anthony

was also responsible for collecting data and updating reports/figures for the assessment of hazardous waste and contaminated materials.

OP 240 Transite, Erie County, Orchard Park, NY PIN 5814.39.321 – Watts is the project monitor for the asbestos abatement of Transite waterline along Route 240 in the Village of Orchard Park. Ms. Anthony was the project monitor onsite and was responsible for ensuring that the abatement crew was following the protocol under 12 NYCRR Part 56 and Blanket Variance #14 for NYS Bridges, Right of Ways and Highways.

Amherst-Buffalo Corridor Light Rail Extension, Project No. 34LZ1725, Erie County, New York - The Niagara Transportation Authority (NFTA) as the Buffalo Light Rail Transit System (LRRT) is completing the environmental review process required under NEPA and SEQR, along with up to 30% preliminary design and engineering for the proposed Amherst-Buffalo Corridor Light Rail Extension. In 2017, the NFTA Board of Commissioners accepted a recommended alternative alignment resulting from the Transit Options Amherst-Buffalo Alternatives Analysis Study. The objectives of the study were to (1) complete the environmental review process of the proposed Amherst-Buffalo Light Rail Extension required under NEPA and SEQR, (2) support the NFTA in coordinating with and seeking FTA concurrence in each step of the FTA Project Development Process, and (3) complete up to 30% design and engineering on the proposed Amherst-Buffalo Light Rail Extension to support the environmental review and provide the documents required by FTA under the Final Guidance for the Capital Investment Grant (CIG) Program to seek entry into the engineering phase. As a subconsultant, Watts is providing environmental services related to groundwater, stormwater, wetlands, and natural resources. Ms. Anthony assisted with wetland delineation, assessment of natural resources, and assessing invasive species.

Erie County Dept. of Public Works Energy Performance Contract – Phase 2, Erie County, New York – As a consultant, Watts tested duct runs and pipe chases that may involve penetrating floors and other materials. Watts was also involved in the window replacement project for this building. Originally, Watts took samples to determine the presence of asbestos containing materials (ACM), lead and polychlorinated biphenyls (PCB) hazards. Following sampling, Watts acted as the project monitor for the removal of ACM and PCBs. Ms. Anthony acted as the project monitor and air sampler during the first months of the window removal. Ms. Anthony was responsible for setting up air samples at the work area and decontamination area due to reduced barrier. She also monitored the abatement crew to ensure that they were following protocol under 12 NYCRR Part 56 and the project variance.

Previous Firm Experience
AMD Environmental Consultants, Inc. - Tonawanda, NY 9/22 - 6/23
Environmental Project Assistant

- Compose reports following the testing of mold, lead, and asbestos to highlight possible health hazards and explain mitigation
- Communicate with our clients over the phone and through email to convey AMD's services, schedule appointments and provide peace of mind
- Organize office systems
- Assist certified mold, lead, and asbestos inspectors during appointments

Internship Experience
Moog Inc. Department of Environmental Health and Safety - East Aurora, NY 5/21 - 8/21
EHS Co-Op, Aircraft Group

- Performed and assessed employees EHS performance through site walks (GEMBA) for a multi-building campus with over 3,000 employees.
- Inventoried and confirmed fire extinguishers and eye wash stations were properly positioned in relation to site specific hazards such as machining titanium and use of corrosives, per OSHA and ANSI standards.
- Led an in-depth study across the campus to assess the use of sharps (razors, utility knives, etc.). Based on lagging metrics indicating an increase of related injuries. Corrective actions included trialling saver options and landing on safer tools for the job.
- Provided support during Title V audits, such as visible emissions inspections, conformal coating and solvent metal cleaning.
- Supported E-waste and used oil pickups and preparation of hazardous waste pickups for a large quantity generator

Lisa Connors

Environmental Scientist

EDUCATION
M.S., Environmental Sciences, Miami University

B.A., Geological Sciences, SUNY College at Geneseo

PROFESSIONAL CERTIFICATIONS
Headwater Habitat Evaluation Index Training, Ohio EPA

Ohio Rapid Assessment Method Training, Ohio EPA

40 Hour HAZWOPER Health and Safety Training with Annual 8 Hour Training

NYSDEC ES&C Control Training

US F&W ESA Training

PROFESSIONAL EXPERIENCE
20 years

SUMMARY OF EXPERIENCE

Ms. Connors has more than 20 years of experience as an environmental scientist specializing in environmental assessments, wetland assessments and delineations, threatened and endangered species reviews, hazardous waste assessments, SEQR/NEPA documentation, and regulatory permiiting. Ms. Connors is fully trained in wetlands delineation in accordance with the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual, allowing her to complete routine and comprehensive wetland delineations for the US Army Corps of Engineers or the NYSDEC wetlands program. Her environmental and wetland experience includes:

NYS Thruway, Exit 57 to Exit 58, Southern Erie County - This safety improvement project includes culvert extensions, slope flattening, and ditch reshaping on both sides of the Thruway, and the median. Watts was responsible for wetland assessment and delineation along 16 linear miles of divided highway through the Towns of Hamburg, Eden, Evans, and Brant, and the Cattaraugus Reservation of the Seneca Nation of Indians. Ms. Connors was one of the Environmental Scientists responsible for assisting with the habitat and wetland assessment, wetland delineation report, quantification of impacts and identification of permitting requirements.

Reconstruction of Beebe Road from Bridge over Hopkins Creek to Wilson-Burt Road, Wilson - This highway project involved full-depth reconstruction, replacement of several cross culverts, and widening the pavement cross-section to meet modern safety standards along approximately 3.0 miles (4.8 km) of Beebe Road. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, floodplain evaluation, and farmlands impacts) for the DAD, and assisted with environmental permitting and asbestos specifications during final design. Watts also performed a stream survey and wetland assessment and delineation. Ms. Connors was the Environmental Scientist responsible for assisting with the habitat and wetland assessment, wetland delineation report, quantification of impacts and identification of permitting requirements.

Lancaster Industrial Park Expansion, Lancaster - This industrial park development occurred in the Town of Lancaster and included 285 acres of former railroad, airport, agricultural land uses later covered entirely covered by thick shrubs with difficult access. Watts performed the wetland assessment and delineation. Ms. Connors was the Environmental Scientist responsible for assisting with the habitat and wetland assessment, wetland delineation report, quantification of impacts and identification of permitting requirements.

Ontario County CATS/Highway Maintenance Facility, Town of Hopewell – Watts performed a wetland delineation to define the federally regulated area for the 17-acre site of the proposed Ontario County CATS/Highway Maintenance Facility near Canandaigua in Ontario County, New York. Ms. Connors was the Environmental Scientist responsible for assisting with the habitat and wetland assessment, wetland delineation report, quantification of impacts and identification of permitting requirements.

Route 77 Rehabilitation: US 20 to NYS Thruway (I-90), Attica - This highway project involved pavement, safety, capacity, drainage and pedestrian improvements along approximately 7.5 miles (12 km), in the Towns of Darien and Pembroke, Genesee County. Watts was responsible for general ecology and endangered species study; wetlands screening and assessment; the hazardous waste/contaminated materials screening; and an asbestos assessment. Ms. Connors was the Environmental Scientist responsible for assisting with the habitat and wetland assessment, wetland delineation report, quantification of impacts and identification of permitting requirements.

Pine Street Bridge Replacement, BIN 2329770, Village of Alfred - Project included the replacement of the bridge which carries Pine Street over Canacadea Creek, in the Village of Alfred. It was the intent of the Allegany County Department of Public Works to replace this structure on the same general roadway alignment with a hydraulically adequate structure designed and built to current standards and features. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, floodplain evaluation,

ecology and endangered species determination) for the Design Report. Watts also performed a wetland assessment and prepared the environmental permits required by USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits.

Hillcroft Drive over Eighteen Mile Creek Bridge Replacement – Town of Boston - This project involved the replacement of bridge on Hillcroft Drive over Eighteen Mile Creek. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, floodplain evaluation, ecology and endangered species determination) for the Design Report. Watts also performed a wetland assessment and prepared the environmental permits required by USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits.

Tonawanda Creek Road Rehabilitation and Slide Stabilization, Towns of Clarence and Lockport - This project involved the reconstruction of approximately 3 miles of roadway and the repair of roadway collapses at two slide areas in Erie and Niagara Counties. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, ecology and endangered species determination) for the Design Report. Watts also performed a wetland assessment and delineation and prepared the environmental permits required by USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits. Ms. Connors also assisted with the habitat and wetland delineation and wetland delineation report.

Rehabilitation of North Canal Road, Old Niagara to Erie Canal, Town of Lockport - This road rehabilitation project involved the reconstructed of North Canal Road on the same alignment with a slightly wider pavement profile to accommodate pedestrians and bicyclists. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, floodplain evaluation, farmlands impacts, ecology and endangered species determination) for the Design Report. Watts also performed a wetland assessment and delineation and prepared the environmental permits required by USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits. Ms. Connors also assisted with the habitat and wetland delineation and wetland delineation report.

Porter Center Road over Six Mile Creek Bridge Replacement, Town of Porter - This project involved the replacement of the Porter Center Road bridge over 18 Mile Creek with a new superstructure. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, floodplain evaluation, ecology and endangered species determination) for the Design Report. Watts also performed a wetland assessment and prepared the environmental permits required by USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits.

Cedar Street over Ledge Creek, Town of Newstead - This project involved the bridge replacement at Cedar Street over Ledge Creek for the Erie County Department of Public Works. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, floodplain evaluation, ecology and endangered species determination) for the Design Report. Watts also performed a wetland assessment and delineation and prepared the environmental permits required by USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits.

Steele Street Culvert Re-Lining, City of Jamestown - This project involced the relining of the Steele Street culvert. Approximately 150 LF of 48" CMP was to be lined with CIPP. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, ecology and endangered species determination) for the Design Report. Watts also performed a wetland assessment and prepared the environmental permits required by

USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits.

NYSDOT RDSA, US 62 over Big Sister Creek, Village of North Collins - This project proposes to replace US Route 62 Bridge over Branch of Big Sister Creek in the Village of North Collins for the NYSDOT. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, ecology and endangered species determination) for the Design Report. Watts also performed a wetland assessment and prepared the environmental permits required by USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits.

Mountain Rd Culvert Replacement over Johnson Creek, Town of Royalton - This project involved the rehabilitation of the Mountain Road Culvert over Johnson Creek. The project proposes to replace the existing 6' stone culvert with a new single-span precast 3 sided concrete structure for the Town of Royalton. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, floodplain evaluation, ecology and endangered species determination) for the Design Report. Watts also performed a wetland assessment and prepared the environmental permits required by USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits.

County Route 18 over Prendergast Creek, Town of North Harmony - This project involved the complete replacement of the County Road 18 Bridge over Prendergast Creek in the Town of North Harmony for the Chautauqua County Department of Public Facilities. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, floodplain evaluation, farmlands impacts, ecology and endangered species determination) for the Design Report. Ms. Connors was the Environmental Scientist responsible for preparing hazardous waste/contaminated materials (HW/CM) survey and the environmental assessment sections of the Project Design Report.

NYSDOT RDSA, Replacement of BIN 1012040, NY Route 430 over Dewittville Creek, Town of Chautauqua - This project involved the complete replacement of the bridge over Dewittville Creek in the Town of Chautauqua for the NYSDOT. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, floodplain evaluation, wetlands, ecology and endangered species determination) for the Design Report. Watts also performed a wetland assessment and delineation and prepared the environmental permits required by USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits.

Clarendon Street Bridge Replacement over Falls Road Railroad, Albion - This project involved the complete replacement of the Clarendon Street Bridge Replacement over Falls Road Railroad. Watts provided environmental assessment services to Orleans County on this Locally-Administered Federal Aid bridge replacement project. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, ecology and endangered species determination) for the Design Report. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report and the environmental permits.

Heise Road Bridge, BR#283-1, Clarence - This project involved the complete replacement of the, Heise Road Bridge for Erie County Department of Public Works. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, ecology and endangered species determination) for the Design Report. Ms. Connors was the Environmental Scientist responsible for preparing hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report; and the environmental permits.

Girdle Road Bridge over Buffalo Creek, BIN 3327310, Elma - This Erie County funded project involved the replacement of the Girdle Road Bridge over Buffalo Creek in Elma. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, floodplain evaluation, ecology and endangered species determination) for the Design Report. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report and the environmental permits.

Pavement Road Bridge Replacement, Lancaster - Watts provided environmental assessment services to Erie County on this Locally-Administered Federal Aid bridge replacement project. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, wetlands, ecology and endangered species determination) for the Design Report. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey and the environmental assessment sections of the Project Design Report.

Leon Bridge #7 over Mud Creek Replacement, Leon - This project involves the complete replacement of the Leon#7 Bridge over Mud Creek. Watts provided environmental assessment services to Cattaraugus County on this Locally-Administered Federal Aid bridge replacement project. Watts' scope of work included the preparation of environmental documentation (wetland assessment, asbestos survey, surface and ground water quality, hazardous waste/contaminated materials, permitting, etc.) and the NEPA determination. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report and the environmental permits.

Leon Bridge #8 over Mud Creek Replacement, Leon - Watts provided environmental assessment services to Cattaraugus County on the Leon Bridge #8 replacement project. Watts performed the environmental assessment and studies (including HW/CMA screening, asbestos survey, surface water resources, floodplain evaluation, farmlands impacts, ecology and endangered species determination) for the DAD. Watts also performed a wetland assessment and prepared the environmental permits required by USACE and NYSDEC. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report and the environmental permits.

Reconstruction of I90 from M.P. 427.7 to M.P. 430.4, Erie County - Watts developed rehabilitation and reconstruction alternatives for the segment of Interstate 90 (I-90), the New York State Thruway, from Milepost (MP) 427.7 to MP 430.40 and performed a field delineation to determine the federal and state jurisdictional wetland boundaries of all wetlands in the project area. Watts' was also responsible for a general ecology and endangered species study; surface water identification; a hazardous waste/contaminated materials screening; a preliminary asbestos assessment, and an energy usage analysis. Ms. Connors was the Environmental Scientist responsible for preparing the hazardous waste/contaminated materials (HW/CM) survey; the environmental assessment sections of the Project Design Report and assisting with the wetland delineation.