

Memorandum

To: Genesee County Economic Development Center
Date: June 26, 2020
From: Sheila S. Hess – Principal Ecologist/CEO
Subject: **STAMP Water Main/Force Main (Wastewater)/Station Wetland and Stream Impacts**



A delineation of wetlands and streams has been completed within project areas for the proposed STAMP Force Main, Water Main, and STAMP Station as described below. A delineation summary for the STAMP Water Main and Force Main is provided in Attachment A. A delineation summary for STAMP Station is provided in Attachment B.

Force Main: Construction of the Force Main which involves the installation of approximately 44,750 linear feet of sanitary force main, metering vaults, and maintenance manholes. The vast majority of installation of sewer related infrastructure will be along public roads via a combination of open cut method and directional drill methods. The Force Main will convey up to six (6) million gallons per day (“MGD”) of treated wastewater from the STAMP site to a new discharge in Oak Orchard Creek.

Water Main: A new water main (“Water Main”) of approximately 23,000 linear feet to be installed along the Lewiston Road right of way between the Genesee County line with Niagara County and the STAMP Site. The new water main will bring up to six (6) MGD of water from the Niagara County Water District (“NCWD”) to STAMP.

STAMP Station: The development of an approximate 20-acre parcel located immediately north of STAMP. This landlocked parcel lies between the STAMP Site and a utility corridor which houses the Empire Pipeline and a 345 KV Power Line which will ultimately supply power to STAMP tenants. This parcel is located to the west of the intersection of Lewiston Road (NYS Route 77) and Crosby Road in the Town of Alabama and is bounded by the Empire Pipeline/345 KV Power Line utility corridor to the north, hedgerows to the east and south, and woods and brush to the west. It is anticipated that this parcel will be the site of an electrical substation.

An estimate of unavoidable temporary impacts to wetlands and streams for the Force Main and Water Main are presented in the table below. These impacts have been minimized to the maximum extent practicable. Temporary impacts to wetlands and streams for the Force Main total 0.25 acre and for the Water Main 0.38 acre. These impacts are due to open cut trench and/or staging areas for horizontal directional drilling (HDD) and will be returned to existing conditions when project construction is complete. All applicable permits will be secured prior to project construction and compensation for impacts will be completed if required (Attachment A).

There are no anticipated impacts to wetlands within the STAMP Station project area (Attachment B).

STAMP Water/Wastewater Wetland and Stream Impact Table			
Identifier	Project Area	Installation Method	Temporary Impact (SF)
W-1	STAMP Water Main	Open Cut	531
W-2 S-1 S-2 S-3	STAMP Water Main	Open Cut/HDD	14,700
W-3 S-4	STAMP Water Main	Open Cut/HDD	830
W-4 S-5	STAMP Water Main	Open Cut	290
W-5	STAMP Water Main	Open Cut	0
W-6 S-6	STAMP Wastewater	Open Cut	398
S-7	STAMP Wastewater	HDD	0
S-8a and 8b	STAMP Wastewater	HDD	0
S-16	STAMP Wastewater	HDD	0
S-14 S-15	STAMP Wastewater	HDD	0
W-7	STAMP Wastewater	HDD	0
S-13	STAMP Wastewater	Open Cut	176
W-8a S-11	STAMP Wastewater	HDD	0
W-8b W-8c	STAMP Wastewater	HDD	0
W-8d S-12	STAMP Wastewater	HDD	556
W-9	STAMP Wastewater	HDD	0
S-10	STAMP Wastewater	HDD	0
W-10 S-9	STAMP Wastewater	HDD/Staging Areas	9,418
S-17	STAMP Wastewater/Oak Orchard Discharge	HDD/Open Cut	150



CC Environment & Planning

Sheila S. Hess
Principal Ecologist/CEO

June 24, 2020

Mr. Mark Masse
Genesee County Economic Development Center
Via Email: mmasse@gcedc.com

Re: STAMP Water Main and Wastewater Wetland and Stream Delineation Summary

Dear Mark:

On behalf of CPL and Genesee County Economic Development Center (GCEDC), I have completed a field review of all of drainages, streams, and wetlands within the STAMP Water Main and Waste Water Area of Interest (AOI) located along approximately 16.8 miles of roads within the Towns of Alabama, Genesee County, NY, and Shelby, Orleans County, NY, including portions of Routes 63 and 77, along the sides of the roads indicated by the plan set provided. My review extended to all waters that are potentially regulated by state and federal agencies. The delineation was conducted in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1, and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (v. 2.0), dated January 2012. Delineation tasks included review of onsite conditions, field delineation, and sub-meter GPS survey of delineation. Deliverables include this delineation summary letter, delineation maps (Attachment A), photographs and datasheets (Attachment B), and shapefiles of mapped resources (provided via email on 6-23-20).

Desktop Review Notes

There are nine federally-mapped wetlands/wetland complexes indicated by the National Wetland Indicator (NWI Mapper) within the AOI and three state-mapped wetlands. There are eleven mapped streams within the AOI, all of which flow toward larger streams and NWI wetlands. These resources are included on the delineation maps provided in Attachment A. There are no listed plant or animal species mapped within this area according to the U.S. Fish & Wildlife Service online consultation database.

Field Mapped Wetlands and Streams

All wetlands were visually inspected and delineated during a field visit conducted on May 14 and 15, 2020 by Sheila Hess, Principal Ecologist, CC Environment & Planning. Wetland and stream features within the project area that could meet jurisdictional requirements were mapped using a Juniper Geode sub-meter GPS. Edges of wetlands and streams greater than 5 feet across were mapped to ensure that any aquatic feature potentially regulated by state and/or federal agencies was included within polygons. Streams less than 5 feet across were mapped as lines and their average width within the AOI is provided in Table 1 below. Wetland and stream features mapped include any permanent, seasonal, or intermittent streams and their bed and bank within the high-water mark (HWM) and wetland features showing appropriate vegetation, hydrology, and soils. Field investigation included inspection of floodplain and riparian areas associated with a stream or wetland. Delineation flags were hung in the field with the number of the waypoint (WPT) indicated.

Ten wetlands and sixteen streams and drainages were mapped within the AOI (see delineation Figure 1, the overview map and Figures 2-15 in Attachment A and photographic documentation and datasheets in Attachment B). Tables 1 below provides a description of each feature mapped and indicates in the Notes column if it is within the water main or wastewater project area. All mapped wetlands and streams require a jurisdictional determination to confirm their regulatory status. Mapped wetland and stream features were provided to CPL digitally as georeferenced shapefiles for inclusion within the project survey database and to facilitate updated design, plan sheets, and impact calculations.

Table 1. STAMP Water/Wastewater Wetland Delineation Stream Datasheet					
Identifier	GPS Points	Flow Reg*/Dir	Description/Classification/Connectivity	Est Bank Width	Notes
W-1	1-40	NA	PEM/Open Water	NA	Water Main Project.
W-2	41-100	NA	PEM/PSS/Open Water - Part of S-1	NA	Water Main Project.
S-1	48-49	P/N	Silt/Muck, straight, wetland	25'	Empties into Wetland 2. Water Main Project.
S-2	59-60	P/N	Vegetative, straight, wetland	20'	Flows in Wetland 2. Water Main Project.
S-3	73-76	P/N	Vegetative, straight, wetland	20'	Flows in Wetland 2. Water Main Project.
S-4	101-103	I/N	Vegetative, straight, wetland	4'	Flows in Wetland 3. Water Main Project.
W-3	101-108	NA	PEM/Open Water	NA	Water Main Project.
W-4	109-118	NA	PEM/scrub shrub	NA	Water Main Project.
S-5	109-115	I/NE	Vegetative, straight, wetland	4'	With Wetland 4. Water Main Project.
S-6	127-	P/E then N	Gravel, straight, wetland	4'	From Wetland 6. Wastewater Project.
W-5	119-126	NA	PEM/scrub	NA	Wastewater Project.
W-6	130-132	NA	PEM/Phrag Marsh	NA	Wastewater Project.
S-7	133-137	I/E	Silt, straight, drains from wetland	15'	Wastewater Project.
S-8a and 8b	NA		See Alabama WD No. 3 data		Wastewater Project.
S-16	138-143	P/NE	Silt, straight, oak orchard	25'-30'	Wastewater Project.
S-15	144-150	P/NE	Rock (Silt), moderate	40'	Oak Orchard Creek. Wastewater Project.
W-7	155-159	NA	PFO		Wastewater Project.
S-14	151-154	E/N	Silt, straight, drains from wetland into oak orchard	2'-4'	Drains from Wetland 7. Wastewater Project.



Table 1. STAMP Water/Wastewater Wetland Delineation Stream Datasheet					
Identifier	GPS Points	Flow Reg*/Dir	Description/Classification/ Connectivity	Est Bank Width	Notes
S-13	160-170	E/W	Vegetative, sinuous	4'	Flows into wetland. Wastewater Project.
W-8	171-208	NA	INWR - PEM, Reed Canary		Wastewater Project.
S-12	177-180	I/W	Vegetative, straight, yes	8'-10'	Flows into Wetland 8. Wastewater Project.
S-11	197-201	I/W	Vegetative, straight, yes	15'-20'	Connects to Wetland 8. Wastewater Project.
W-9	209-218	NA	PEM	NA	Wastewater Project.
S-10	219-227	E/W	Vegetative, straight, flows into wetland		Wastewater Project.
W-10	228-240	NA	INWR – PFO, Open Water	NA	Wastewater Project.
S-9	228-231	P/E	Silt, sinuous, flows wetland-10		Oak Orchard Creek. Wastewater Project.

Please contact me if you have any questions about the delineation and summary. If you require additional information, jurisdictional determination, or assistance with impact avoidance, minimization, and permitting please let me know.

Sincerely,



Sheila S. Hess, Principal Ecologist
 CEO CC Environment & Planning

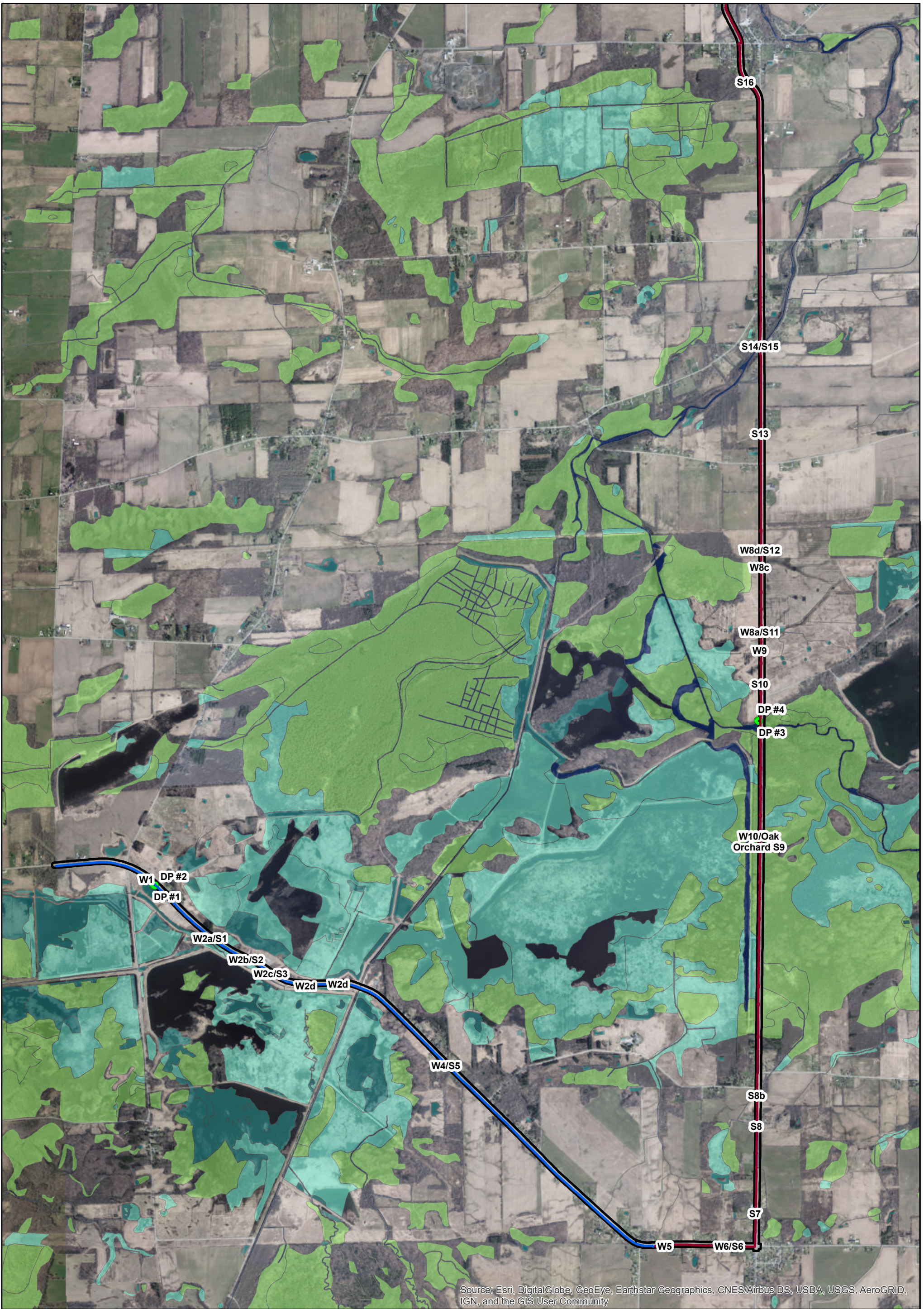
Attachment A – Delineation Map and Figures

Attachment B – Photographs and Datasheets

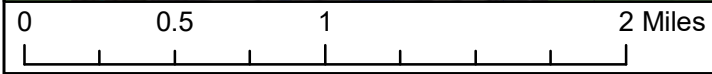


Attachment A





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



<p>Environment & Planning</p>	<p>Wetland and Stream Delineation Overview</p> <p>STAMP Water Delineation Genesee and Orleans County, New York</p> <p>K. Hojnacki, Date: 6/24/2020</p>	Data Point	Wetland/Stream	Freshwater Emergent Wetland
		Proposed Water Main	Proposed Wastewater Main	Freshwater Forested/Shrub Wetland
	Water Main AOI		Riverine	
	Wastewater AOI			

Figure 1



0 0.0225 0.045 0.09 Miles



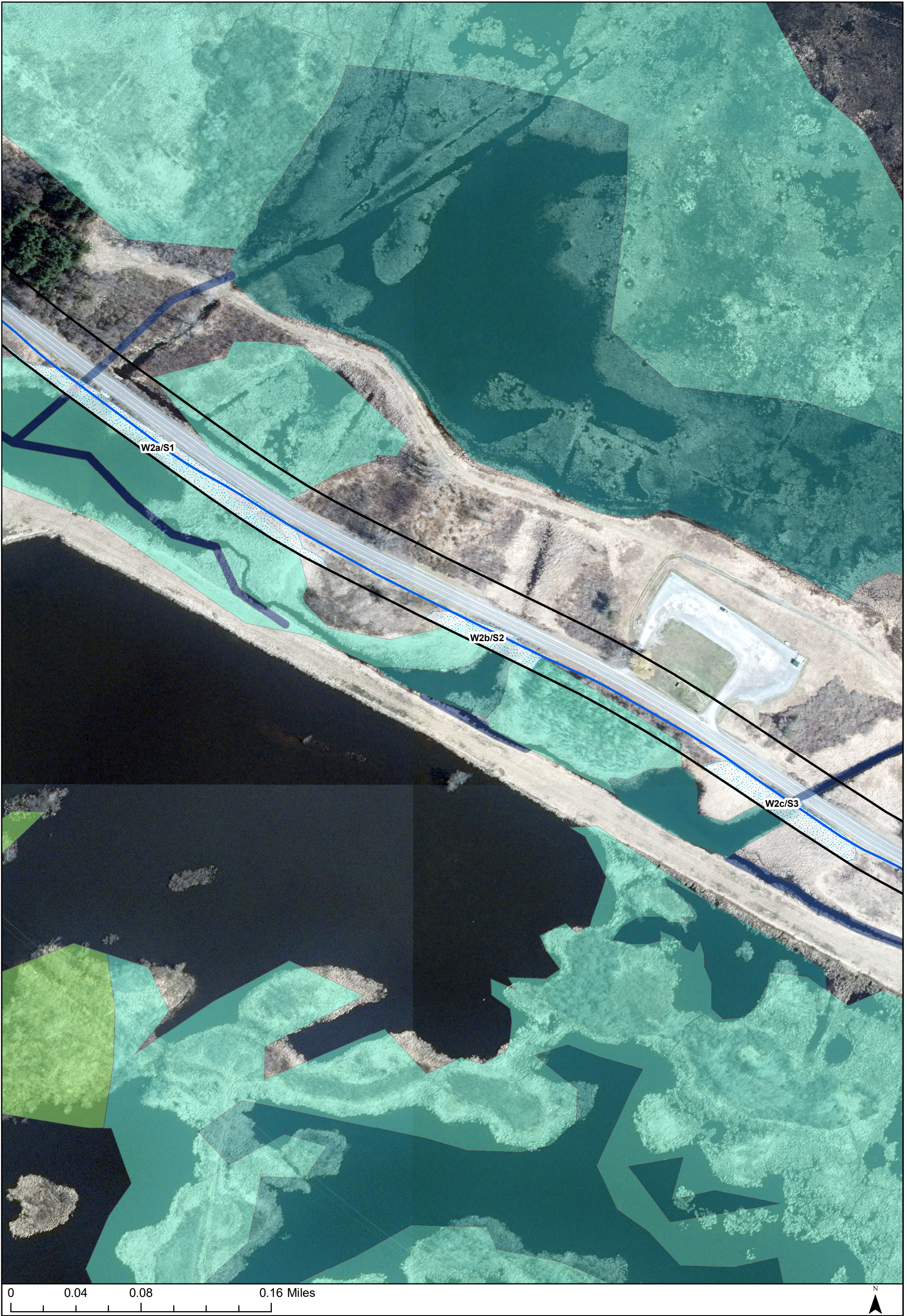
Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020

- | | |
|---------------------|-----------------------------------|
| Data Point | Freshwater Emergent Wetland |
| Wetland/Stream | Freshwater Forested/Shrub Wetland |
| Proposed Water Main | Freshwater Pond |
| Water Main AOI | Riverine |

Figure 2








0 0.0375 0.075 0.15 Miles



Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020

-  Wetland/Stream
-  Proposed Water Main
-  Water Main AOI





- NWI Wetlands**
-  Freshwater Emergent Wetland
 -  Freshwater Forested/Shrub Wetland
 -  Freshwater Pond
 -  Riverine

Figure 4



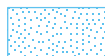
0 0.0125 0.025 0.05 Miles



Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020



Wetland/Stream



Proposed Water Main



Water Main AOI

Figure 5



0 0.005 0.01 0.02 Miles



Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020



Wetland/Stream



Proposed Wastewater Main



Wastewater AOI

Figure 6

6



0 0.005 0.01 0.02 Miles



Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020

 Wetland/Stream

 Proposed Wastewater Main


 Wastewater AOI

Figure 7



0 0.005 0.01 0.02 Miles



Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020

Wetland/Stream

Proposed Wastewater Main

Wastewater AOI

NWI Wetlands

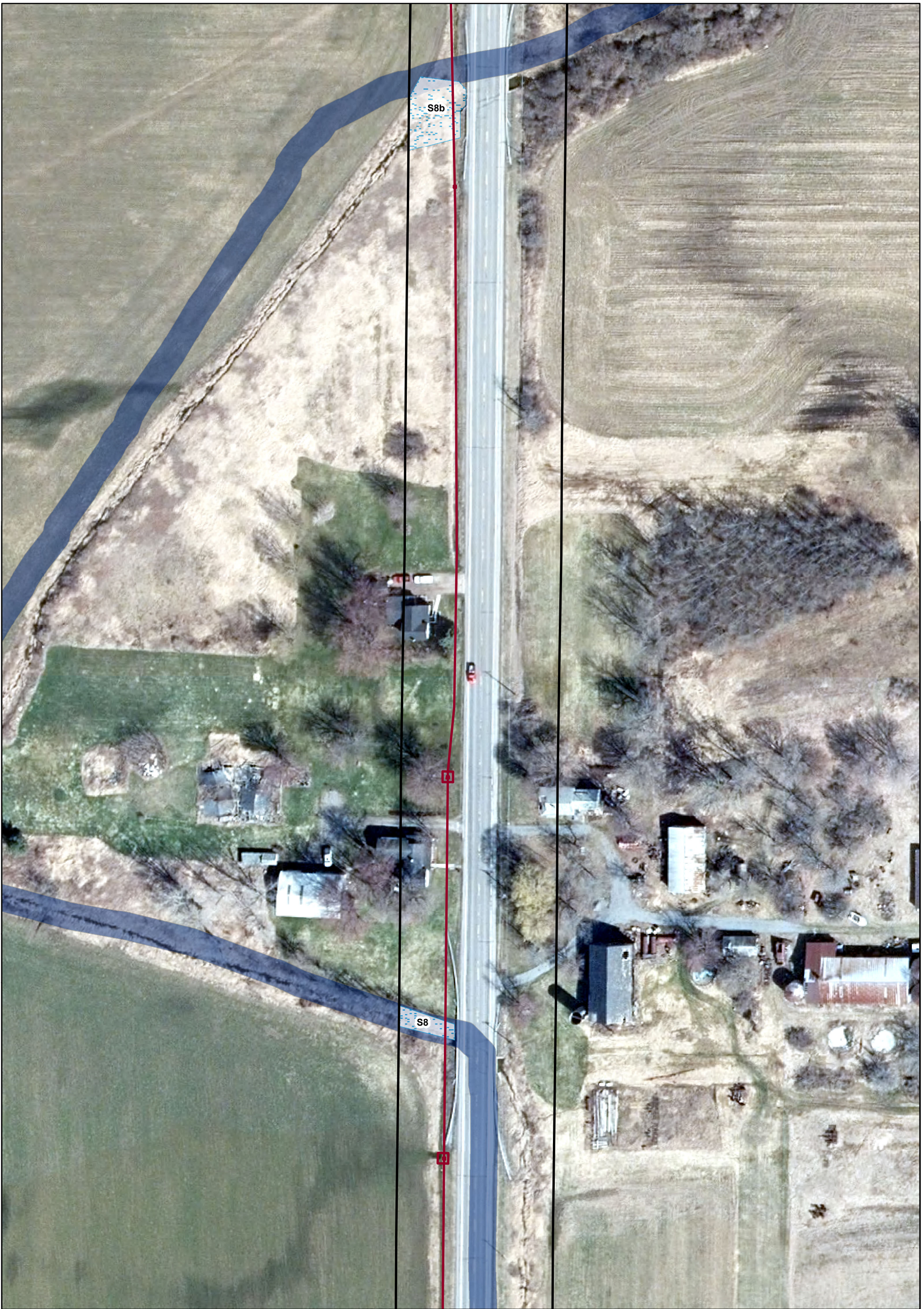
Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Riverine

Figure 8



0 0.015 0.03 0.06 Miles



Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020

Wetland/Stream

Proposed Wastewater Main

Wastewater AOI

NWI Wetlands

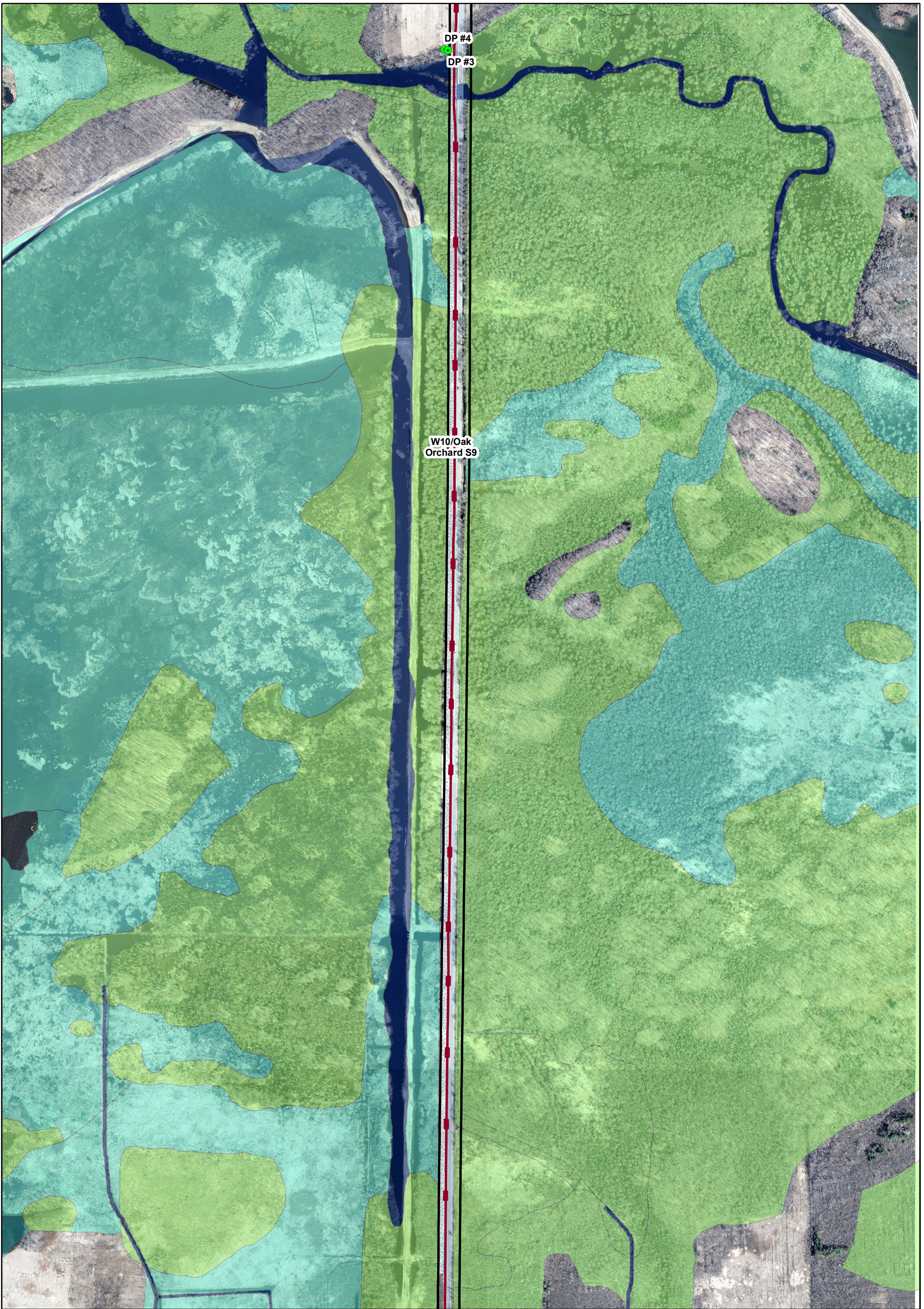
Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Riverine

Figure 9



0 0.125 0.25 0.5 Miles



Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020

- | | |
|--------------------------|-----------------------------------|
| Proposed Wastewater Main | NWI Wetlands |
| Data Point | Freshwater Emergent Wetland |
| Wastewater AOI | Freshwater Forested/Shrub Wetland |
| Wetland/Stream | Freshwater Pond |
| | Riverine |

Figure 10



0 0.0225 0.045 0.09 Miles





Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York


K. Hojnacki, Date: 6/24/2020


 Wetland/Stream


 Proposed Wastewater Main

 Wastewater AOI

NWI Wetlands

 Freshwater Emergent Wetland

 Freshwater Forested/Shrub Wetland

 Freshwater Pond

 Riverine

Figure 11






0 0.02 0.04 0.08 Miles



Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020

-  Wetland/Stream
-  Proposed Wastewater Main
-  Wastewater AOI





- NWI Wetlands**
-  Freshwater Emergent Wetland
 -  Freshwater Forested/Shrub Wetland
 -  Freshwater Pond
 -  Riverine

Figure 12



0 0.005 0.01 0.02 Miles



Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020



Wetland/Stream

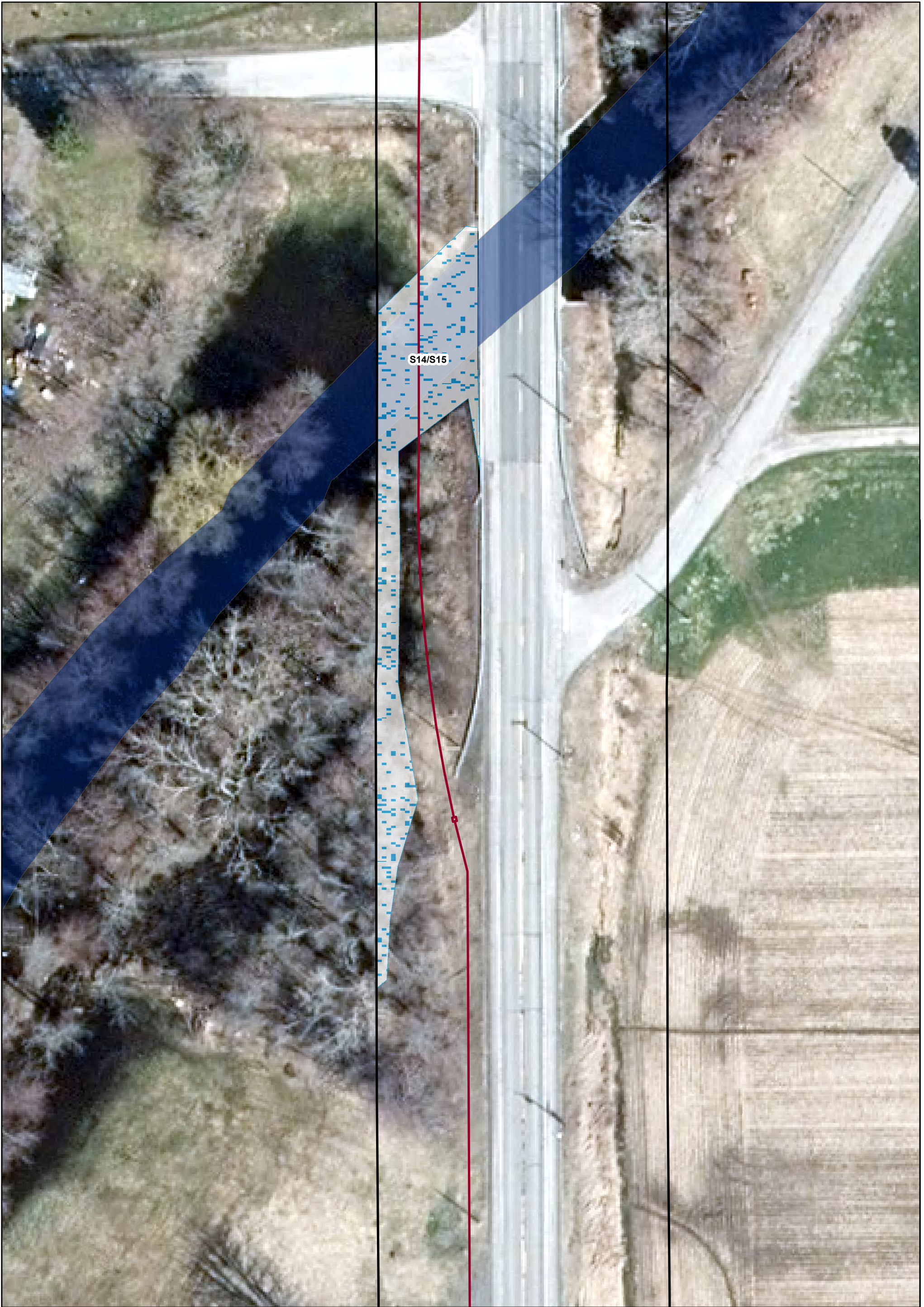


Proposed Wastewater Main



Wastewater AOI

**Figure
13**






0 0.0075 0.015 0.03 Miles



Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York

K. Hojnacki, Date: 6/24/2020

-  Wetland/Stream
-  Proposed Wastewater Main
-  Wastewater AOI





- NWI Wetlands**
-  Freshwater Emergent Wetland
 -  Freshwater Forested/Shrub Wetland
 -  Freshwater Pond
 -  Riverine

Figure 14



0 0.005 0.01 0.02 Miles





Field Mapped Wetland/Stream

STAMP Water Main Delineation
Genesee and Orleans County, New York


K. Hojnacki, Date: 6/24/2020


 Wetland/Stream


 Proposed Wastewater Main

 Wastewater AOI

NWI Wetlands

 Freshwater Emergent Wetland

 Freshwater Forested/Shrub Wetland

 Freshwater Pond

 Riverine

Figure 15

Attachment B



STAMP Water/Wastewater Wetland Delineation Photos



W1 DP1 South



DP1 Soil



W1 DP1 North



DP2 North

STAMP Water/Wastewater Wetland Delineation Photos



W2 East



W2 East



W3 South



W4 South

STAMP Water/Wastewater Wetland Delineation Photos



W5 South



S6/W6 South



W7 North



W8 South

STAMP Water/Wastewater Wetland Delineation Photos



W9 West



W10 DP3 West



DP4 East



W10 S9 West

STAMP Water/Wastewater Wetland Delineation Photos



S1 West



S2 W2 South



S2 West



S3 East

STAMP Water/Wastewater Wetland Delineation Photos



S3 South



S4 East



S5 South



S7 East

STAMP Water/Wastewater Wetland Delineation Photos



S7 West



S10 East



S10 West



S11 East

STAMP Water/Wastewater Wetland Delineation Photos



S12 West



S13 West



S13 East



S14 North

STAMP Water/Wastewater Wetland Delineation Photos



S14 South



S15 Northeast



S15 Southwest



S16 Northeast

STAMP Water/Wastewater Wetland Delineation Photos



S16 Southwest



S10 North

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STAMP Big Water City/County: Genesee Sampling Date: 5/14/2020
 Applicant/Owner: GCEDC State: NY Sampling Point: 1
 Investigator(s): SH/EH Section, Township, Range: Alabama
 Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope %: 0%
 Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: WPT1 Long: _____ Datum: WGS84
 Soil Map Unit Name: _____ NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) _____ Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) _____ Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) _____ Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) _____ Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) _____ Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	_____ 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) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>6</u> Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
---	---

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

Remarks:

VEGETATION– Use scientific names of plants.

Sampling Point: 1

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

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	_____	=Total Cover	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Phalaris arundinacea</i>	50	Yes	FACW
2. <i>Phragmites australis</i>	40	Yes	FACW
3. <i>Open Water</i>	10	No	
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	100	=Total Cover	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>90</u>	x 2 = <u>180</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>180</u> (B)
Prevalence Index = B/A = <u>2.00</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0¹
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes No

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STAMP Big Water City/County: Genesee Sampling Date: 5/14/2020
 Applicant/Owner: GCEDC State: NY Sampling Point: 2
 Investigator(s): SH/EH Section, Township, Range: Alabama
 Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope %: 0%
 Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: WPT2 Long: _____ Datum: WGS84
 Soil Map Unit Name: _____ 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	---

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

Remarks:

VEGETATION– Use scientific names of plants.

Sampling Point: 2

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

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	_____	=Total Cover	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Barbarea vulgaris</i>	30	Yes	FAC
2. <i>Alliaria petiolata</i>	15	No	FACU
3. <i>Lonicera morrowii</i>	10	No	FACU
4. Grass Unknown	40	Yes	
5. <i>Phalaris arundinacea</i>	5	No	FACW
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	100	=Total Cover	

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

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>60</u> (A)	<u>200</u> (B)
Prevalence Index = B/A = <u>3.33</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is $\leq 3.0^1$
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes No X

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STAMP Wastewater City/County: Genesee/Orleans Sampling Date: 5/14/2020
 Applicant/Owner: GCEDC State: NY Sampling Point: 3
 Investigator(s): SH/EH Section, Township, Range: Alabama
 Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope %: 0%
 Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: WPT Long: _____ Datum: WGS84
 Soil Map Unit Name: _____ 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
--	---

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

Remarks:

VEGETATION– Use scientific names of plants.

Sampling Point: 3

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Acer rubrum</i></u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>
2. <u><i>Fraxinus pennsylvanica</i></u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	<u>80</u> =Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Cephalanthus occidentalis</i></u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>
2. <u><i>Frangula alnus</i></u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	<u>25</u> =Total Cover		
Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Lysimachia nummularia</i></u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>
2. <u><i>Iris versicolor</i></u>	<u>10</u>	<u>No</u>	<u>OBL</u>
3. <u><i>Phragmites australis</i></u>	<u>15</u>	<u>No</u>	<u>FACW</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	<u>85</u> =Total Cover		
Woody Vine Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Toxicodendron radicans</i></u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	<u>20</u> =Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>25</u>	x 1 = <u>25</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>90</u>	x 3 = <u>270</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>210</u> (A)	<u>485</u> (B)
Prevalence Index = B/A = <u>2.31</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STAMP Wastewater City/County: Genesee/Orleans Sampling Date: 5/14/2020
 Applicant/Owner: GCEDC State: NY Sampling Point: 4
 Investigator(s): SH/EH Section, Township, Range: Alabama
 Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope %: 0%
 Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: _____ Long: _____ Datum: WGS84
 Soil Map Unit Name: _____ 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> ? Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
---	---

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

Remarks:

VEGETATION– Use scientific names of plants.

Sampling Point: 4

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
2. <u>Frangula alnus</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	<u>45</u> =Total Cover		

Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lonicera morrowii</u>	<u>70</u>	<u>Yes</u>	<u>FACU</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	<u>70</u> =Total Cover		

Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	_____ =Total Cover		

Woody Vine Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	_____ =Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>70</u>	x 4 = <u>280</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>410</u> (B)
Prevalence Index = B/A = <u>3.57</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is $\leq 3.0^1$
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes No X

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



CC Environment & Planning

Sheila S. Hess
Principal Ecologist/CEO

June 26, 2020

Mr. Mark Masse
Genesee County Economic Development Center
Via Email: mmasse@gcedc.com

Re: STAMP Station Wetland and Stream Delineation Summary

Dear Mark:

I have completed a field review of all of drainages, streams, and wetlands within the 20-acre STAMP Station located immediately north of the STAMP site in the Town of Alabama, Genesee County, NY. My review extended to all waters that are potentially regulated by state and federal agencies. The delineation was conducted in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1, and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (v. 2.0), dated January 2012. Delineation tasks included review of onsite conditions, field delineation, and sub-meter GPS survey of delineation. Deliverables include this delineation summary letter, delineation map, photographs and datasheets (Attachment A), and shapefiles of mapped resources (provided via email May 2020).

Desktop Review Notes

There is one federally-mapped wetland indicated by the National Wetland Indicator (NWI Mapper) within the area of investigation (AOI). There are no state-mapped wetlands and no mapped streams. There are no listed plant or animal species mapped within this area according to the NYS Department of Environmental Conservation and U.S. Fish & Wildlife Service online consultation databases.

Field Mapped Wetlands and Streams

All wetlands were visually inspected and delineated during a field visit conducted on August 5, 2019 by Sheila Hess, Principal Ecologist, CC Environment & Planning. Wetland and stream features within the project area that could meet jurisdictional requirements were mapped using a Juniper Geode sub-meter GPS. Wetland and stream features mapped include any permanent, seasonal, or intermittent streams and their bed and bank within the high-water mark (HWM) and wetland features showing appropriate vegetation, hydrology, and soils. Field investigation included inspection of floodplain and riparian areas associated with a stream or wetland. Delineation flags were hung in the field with the number of the waypoint (WPT) indicated.

Two wetlands were mapped within the AOI (see delineation map, photographic documentation and datasheets in Attachment A). Mapped wetlands require a jurisdictional determination to confirm their regulatory status. Mapped wetlands were provided to Genesee County Economic Development Center digitally as georeferenced shapefiles for inclusion within the project survey database and to facilitate updated design, plan sheets, and impact calculations.

Please contact me if you have any questions about the delineation and summary. If you require additional information, jurisdictional determination, or assistance with impact avoidance, minimization, and permitting please let me know.

Sincerely,



Sheila S. Hess, Principal Ecologist
CEO CC Environment & Planning

Attachment A – Delineation Map, Photographs and Datasheets



Attachment A



STAMP Station

Delineated Wetlands 8-5-19
CC Environment & Planning

Legend

- AOI
- Trib
- Up DP
- Wet DP
- Wetland



Google Earth

© 2018 Google



1000 ft

STAMP Station Data Point 2 – Palustrine Forested Wetland



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Delmar City/County: Alabama/Genesee Sampling Date: 8/5/19
 Applicant/Owner: GCEDC State: NY Sampling Point: 1
 Investigator(s): S. Hess Section, Township, Range: Alabama
 Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope %: 0.10
 Subregion (LRR or MLRA): LRR L Lat: WPT Long: _____ Datum: WGS 84
 Soil Map Unit Name: _____ 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 <u>X</u> Hydric Soil Present? Yes _____ No <u>0</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) 	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) _____ ___ Surface Water (A1) ___ Water-Stained Leaves (B9) ___ High Water Table (A2) ___ Aquatic Fauna (B13) ___ Saturation (A3) ___ Marl Deposits (B15) ___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5) ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <u>X</u> 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 <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	---

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

Remarks:

VEGETATION– Use scientific names of plants.

Sampling Point: 1

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Tilia americana</i></u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>
2. <u><i>Carya glabra</i></u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>
3. <u><i>Acer saccharinum</i></u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	<u>100</u> =Total Cover		

Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Carpinus caroliniana</i></u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>
2. <u><i>Lindera benzoin</i></u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>
3. <u><i>Fraxinus americana</i></u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	<u>50</u> =Total Cover		

Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Persicaria virginiana</i></u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>
2. <u><i>Fraxinus americana</i></u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	<u>75</u> =Total Cover		

Woody Vine Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Vitis vulpina</i></u>	<u>10</u>	<u>No</u>	<u>FAC</u>
2. <u><i>Toxicodendron radicans</i></u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>
3. <u><i>Parthenocissus quinquefolia</i></u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>
4. _____	_____	_____	_____
	<u>60</u> =Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 10 (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 <u>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>110</u>	x 3 = <u>330</u>
FACU species <u>115</u>	x 4 = <u>460</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>285</u> (A)	<u>910</u> (B)
Prevalence Index = B/A = <u>3.19</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is $\leq 3.0^1$
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes No X

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Delmar City/County: Alabama/Genesee Sampling Date: 8/5/19
 Applicant/Owner: GCEDC State: NY Sampling Point: 2
 Investigator(s): S. Hess Section, Township, Range: Alabama
 Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope %: 0.10
 Subregion (LRR or MLRA): LRR L Lat: _____ Long: _____ Datum: WGS 84
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>1</u>
Remarks: (Explain alternative procedures here or in a separate report.) 	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) _____ <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
--	---

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
--	--

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

Remarks:

VEGETATION– Use scientific names of plants.

Sampling Point: 2

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Quercus bicolor</u>	10	Yes	FACW
2. <u>Carya laciniosa</u>	10	Yes	FACW
3. <u>Fraxinus americana</u>	20	Yes	FACU
4. <u>Tilia americana</u>	10	Yes	FACU
5. <u>Acer saccharinum</u>	10	Yes	FACW
6. _____			
7. _____			
	60	=Total Cover	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Fraxinus americana</u>	20	Yes	FACU
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
	20	=Total Cover	

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Pilea pumila</u>	25	Yes	FACW
2. <u>Boehmeria cylindrica</u>	25	Yes	OBL
3. <u>Impatiens capensis</u>	20	Yes	FACW
4. <u>Bare ground</u>	30	Yes	
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
	100	=Total Cover	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Vitis</u>	15	Yes	FAC
2. <u>Parthenocissus quinquefolia</u>	10	Yes	FACU
3. _____			
4. _____			
	25	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 12 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 58.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>25</u>	x 1 = <u>25</u>
FACW species <u>75</u>	x 2 = <u>150</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>60</u>	x 4 = <u>240</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>175</u> (A)	<u>460</u> (B)
Prevalence Index = B/A = <u>2.63</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes No

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

