

# **Interstate 80, Section 17M**

## **Water Resources Delineation Report 2019 Addendum - Expanded Study Area**

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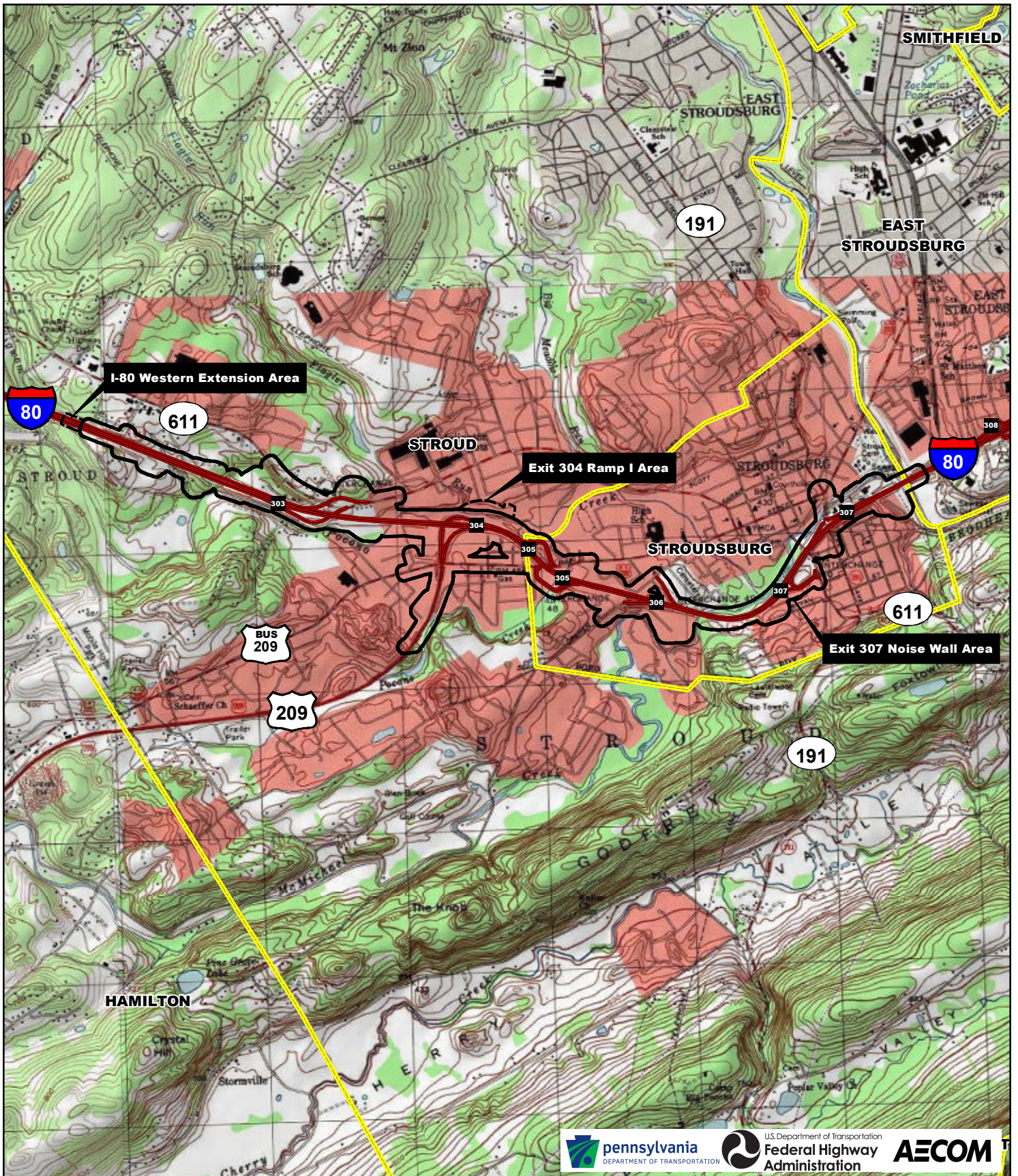
## I. Introduction

The SR 0080 Section 17M Reconstruction project is a 3.5-mile roadway reconstruction traversing parts of three municipalities (Stroud Township, Stroudsburg Borough and East Stroudsburg Borough) in Monroe County, Pennsylvania. The project area can be found on the Stroudsburg, PA USGS Quadrangle and is centered at approximately 40° 59' 0.6" N and 75° 12' 54.4" W (*Figure I*). The project area is primarily a suburban and urban landscape across a rolling topography, generally paralleling McMichael Creek and Pocono Creek from east to west. Higher density residential and commercial development is found east of the US 209 interchange (Exit 304) and continues east to Brodhead Creek. Suburban and commercial development extends from the same interchange to the west. Local topography consists of narrow, moderately deep stream valleys and rolling upland terrain.

This project is currently in the preliminary engineering and environmental clearance phase, and environmental studies have been conducted to satisfy the requirements of the state and federal permitting. The U.S Army Corps of Engineers (USACE) has jurisdictional authority over Waters of the U.S., including wetlands, as mandated by Section 404 of the Clean Water Act. The Pennsylvania Department of Environmental Protection (PADEP) has jurisdictional authority under Title 25 of the Pa Code, Chapter 105, Dam Safety and Encroachments Act.




The *Interstate 80, Section 17M Water Resources Delineation Report* (November 2015) and *Interstate 80, Section 17M Water Resources Delineation Report 2018 Addendum – Expanded Study Area* (January 2018) documented the presence and extent of regulated wetlands and waterways within the project area. Subsequently, design refinements necessitated expanding the study area in three discrete areas: 1) I-80 Western Extension, 2) Exit 304 Ramp I, and 3) Exit 307 Noise Wall (*Figure I*). The current expanded study areas were investigated for wetlands and watercourses on May 8, 2019 by AECOM biologists. This is the second addendum to the November 2015 *Interstate 80, Section 17M Water Resources Delineation Report*; it documents the results of the delineation effort performed for the 2019 expanded study areas.

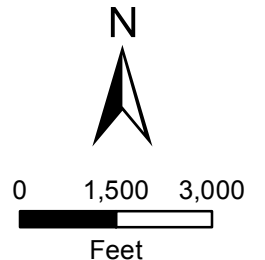
A description of each water resource identified within the expanded study areas is provided below. Wetland Delineation Forms documenting onsite conditions are located in *Appendix A*. Photographs of identified or expanded project area water resources are located in *Appendix B*.



**I-80 RECONSTRUCTION**  
**FIGURE 1: PROJECT STUDY AREA**

Print Date: 6/30/2019

-  2019 Water Resources Study Area
-  Prior Water Resources Study Area
-  Municipalities



## II. Regulations & Methodology

### A. Watercourses

Project area watercourses within the expanded study areas were preliminarily identified using available mapping. Field investigations were conducted to confirm the presence/absence of watercourses. The jurisdictional limits of the field identified watercourses were delineated based on their observed ordinary high water mark (OHWM). Stream classifications under Title 25, Chapter 93, the Pennsylvania Fish and Boat Commission's (PFBC's) regulations, and the USACE *Clean Water Act Jurisdiction Guidance* (2008) were also identified. Watercourse locations were surveyed using conventional survey methods, and photographs were taken of each resource.

### B. Wetlands

Following a preliminary desktop review, field investigations were conducted for the 2019 expanded study areas to determine if wetlands were present. Wetlands were delineated in accordance with the USACE *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (January 2012). Data on the composition of the vegetation community, soil profile characteristics, and hydrology were recorded on Wetland Determination Data Forms. If present, wetlands were classified following *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979). The delineated boundary of each wetland was surveyed using conventional survey methods. Photographs were taken of each resource and the surrounding uplands.

## III. Results

### A. Background Information

A review of secondary resources was completed in order to assess the potential for the existence of wetlands and watercourses in the 2019 expanded study areas. This inventory included review of topographic mapping, the Soil Survey of Monroe County, and NWI mapping.

A review of the Stroudsburg, PA, USGS 7.5-Minute Quadrangle (*Figure 1*) indicated the presence of Pocono Creek and Flagler Run within or adjacent to the 2019 expanded study areas.

The Soil Survey identified one soil type that is considered hydric or is known to contain hydric soil components within the 2019 expanded study areas (*Figure 2*). *Table 1* provides a brief overview of the hydric soils. A description of all the soils within the 2019 expanded study areas is contained in *Table 2*.

**Table 1: Hydric Soils Properties**

Soil Name	Slope	Composition	Depth to Restrictive Layer	Depth to Water Table	Drainage Class
<b>Holly silt loam (Hy)</b>	0-3%	Holly and similar soils: 100%	More than 80 inches	Seasonally at 3 inches	Poorly drained

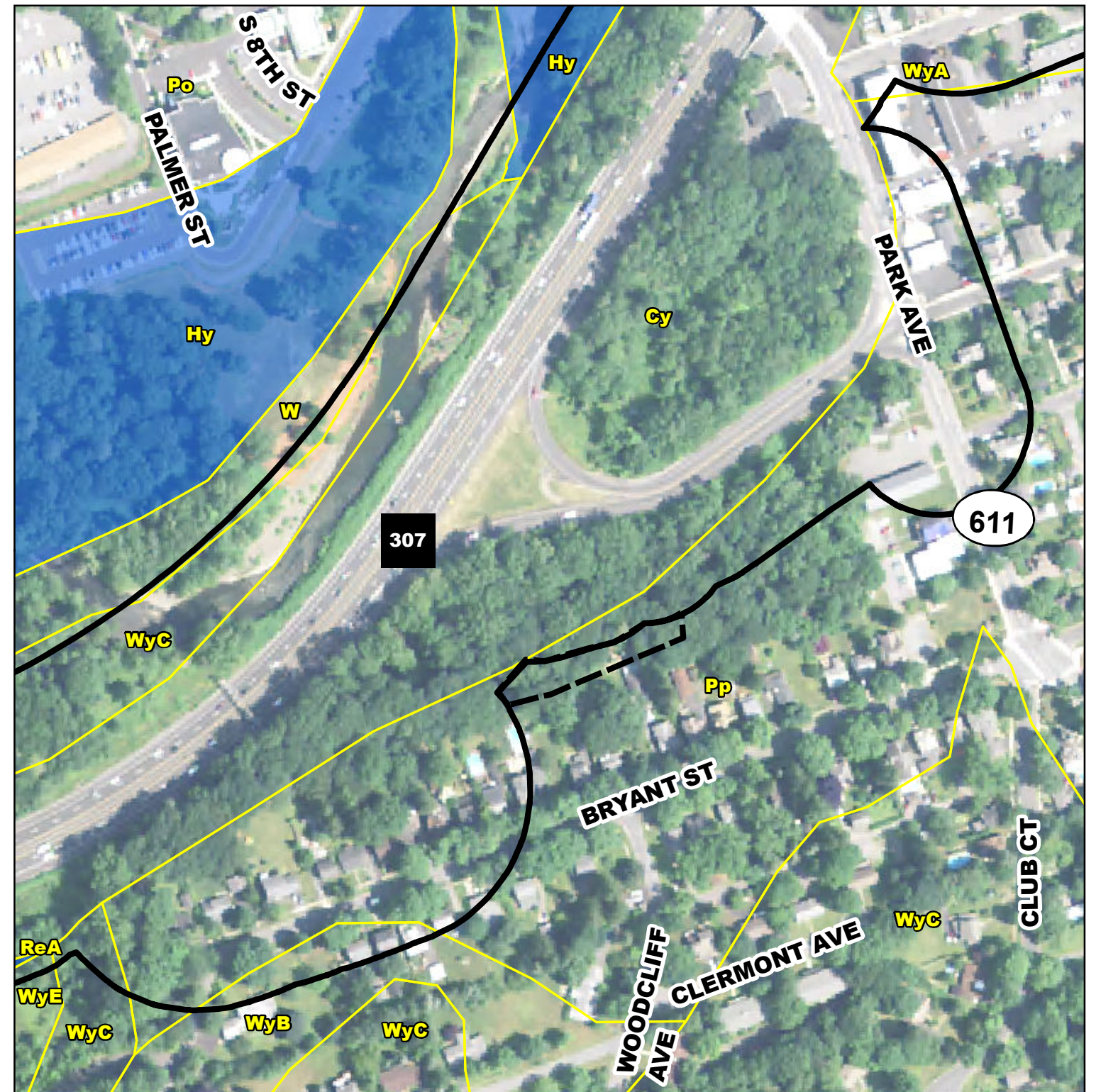
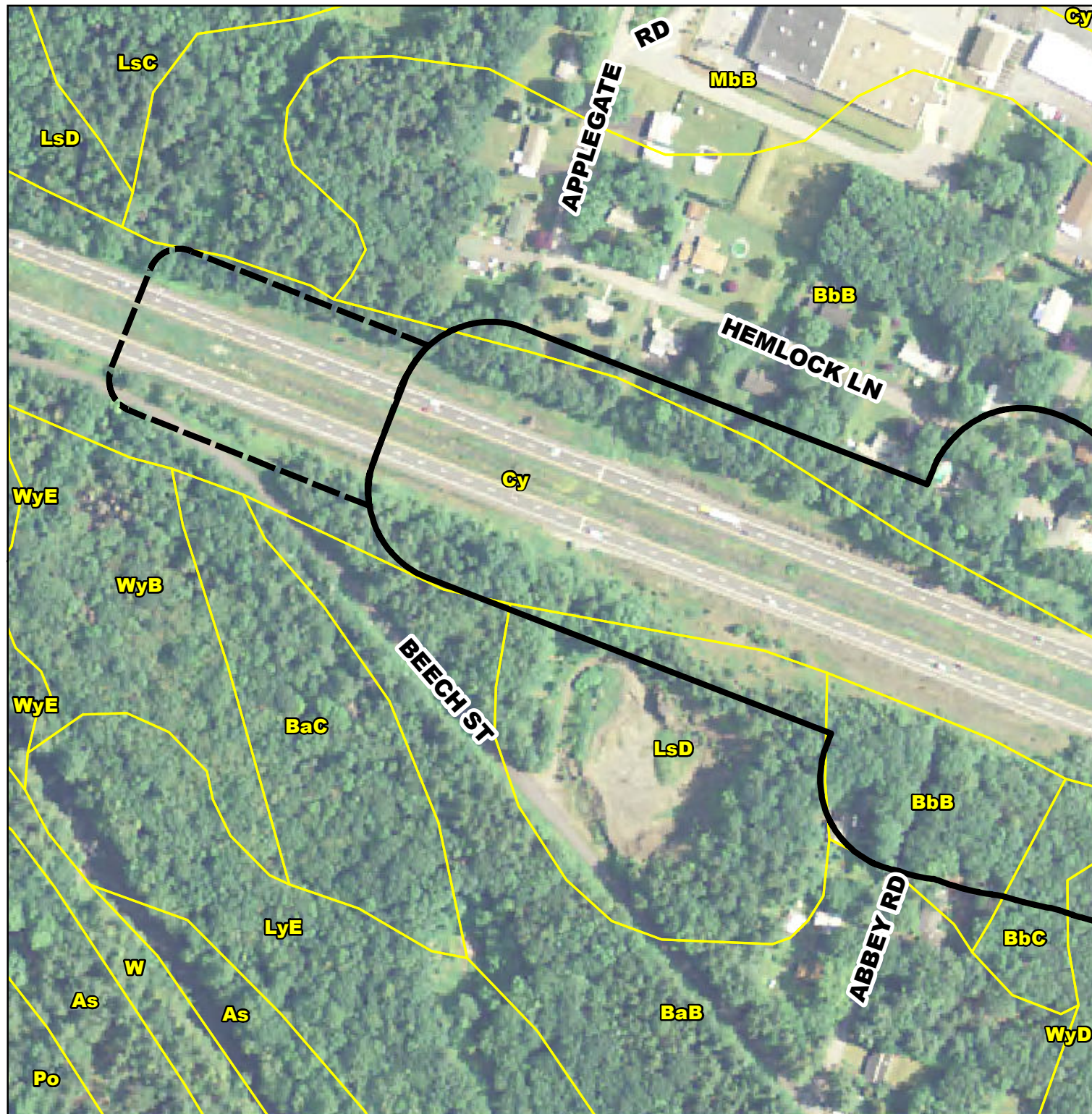
Source: Natural Resources Conservation Service, *Web Soil Survey*, 2019.

**Table 2: Soil Descriptions**

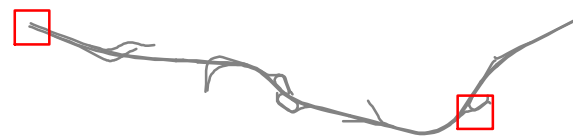
Soil Name	Soil Symbol	Slope	Parent Material Setting
<b>Cut and fill land</b>	Cy	0 to 25%	Man-made and altered materials from mixed rock types
<b>Holly silt loam</b>	Hy	0 to 3%	Alluvium derived from sandstone and shale
<b>Philo silt loam</b>	Ph	0 to 3%	Coarse-loamy alluvium derived from sandstone and siltstone
<b>Pope silt loam</b>	Po	0 to 3%	Coarse-loamy alluvium derived from sandstone and siltstone
<b>Pope silt loam, high bottom</b>	Pp	0 to 3%	Coarse-loamy alluvium derived from sandstone and siltstone
<b>Water</b>	W	0%	Rivers streams ponds
<b>Wyoming gravelly sandy loam</b>	WyD	15-25%	Sandy and gravelly glaciofluvial deposits derived from sandstone and siltstone


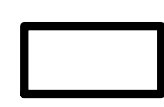
Source: Natural Resources Conservation Service, *Web Soil Survey*, 2019.

Review of the NWI mapping did not identify any wetland systems located within the 2019 expanded study areas (*Figure 3*). However, two riverine systems were identified: One riverine unknown perennial, unconsolidated bottom, permanently flooded (R5UBH) feature that coincides with Pocono Creek and Flagler Run and one riverine unknown perennial, unconsolidated shore, seasonally flooded feature (R5USC) that is associated with Pocono Creek as well.

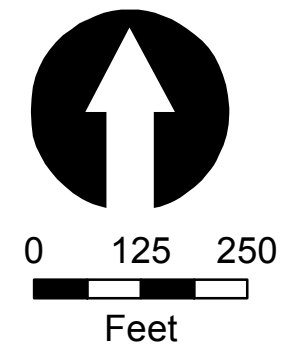


**SHEET KEY**



-  2019 Water Resources Study Area
-  Prior Water Resources Study Area

-  Soil Type
-  Hydric Soils
-  Exit



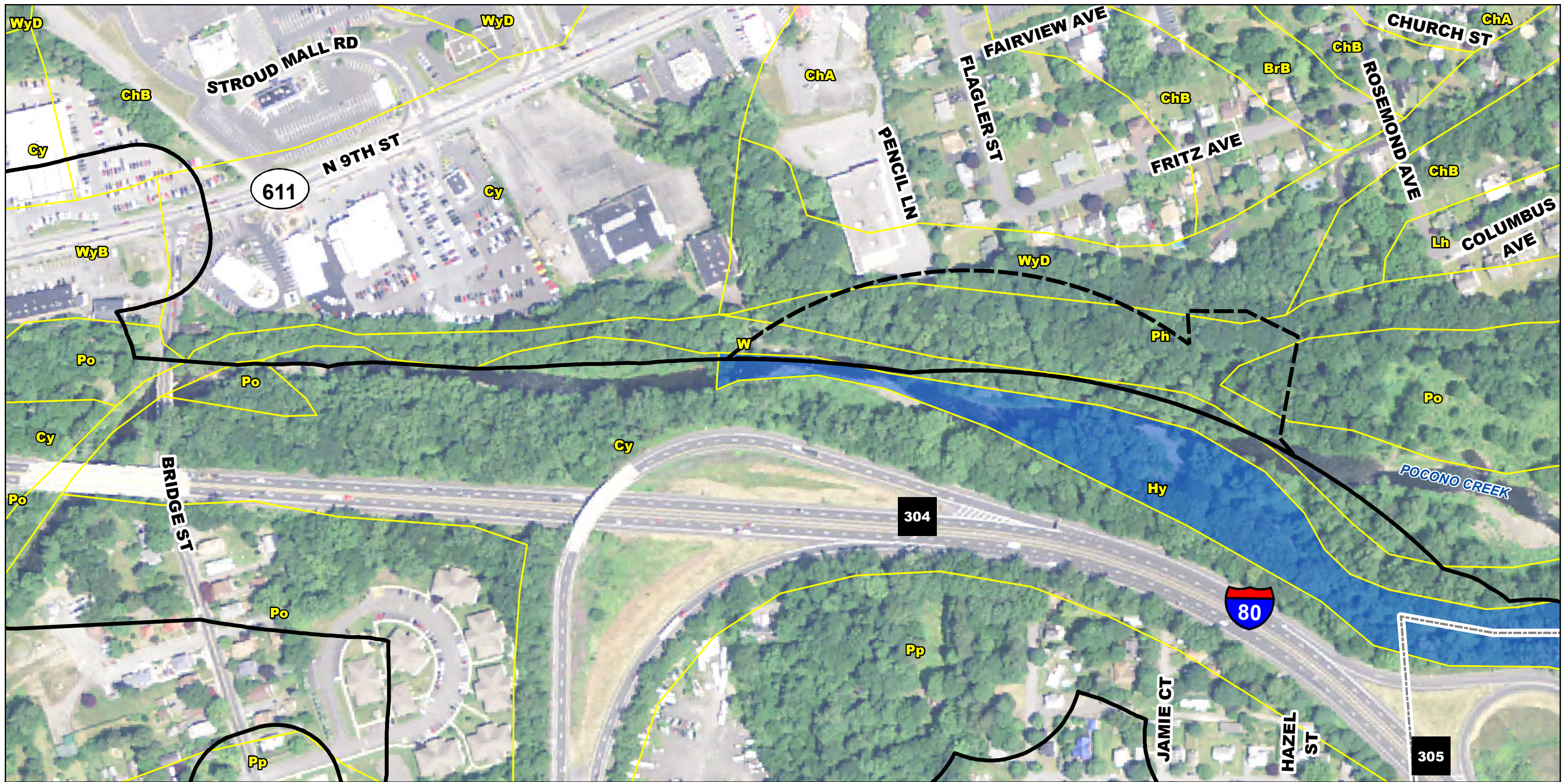
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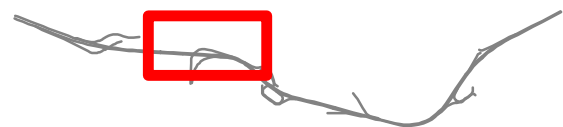
**FIGURE 2A: PROJECT AREA SOILS**






Source: PAMAP, USDA NRCS.

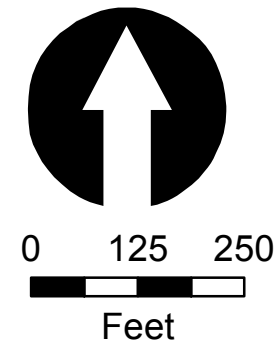


**SHEET KEY**



-  2019 Water Resources Study Area
-  Prior Water Resources Study Area

-  Soil Type
-  Hydric Soils
-  Exit



Print Date: 7/1/2019

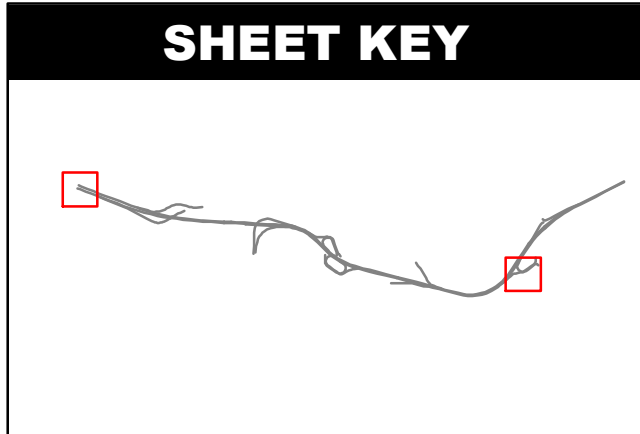
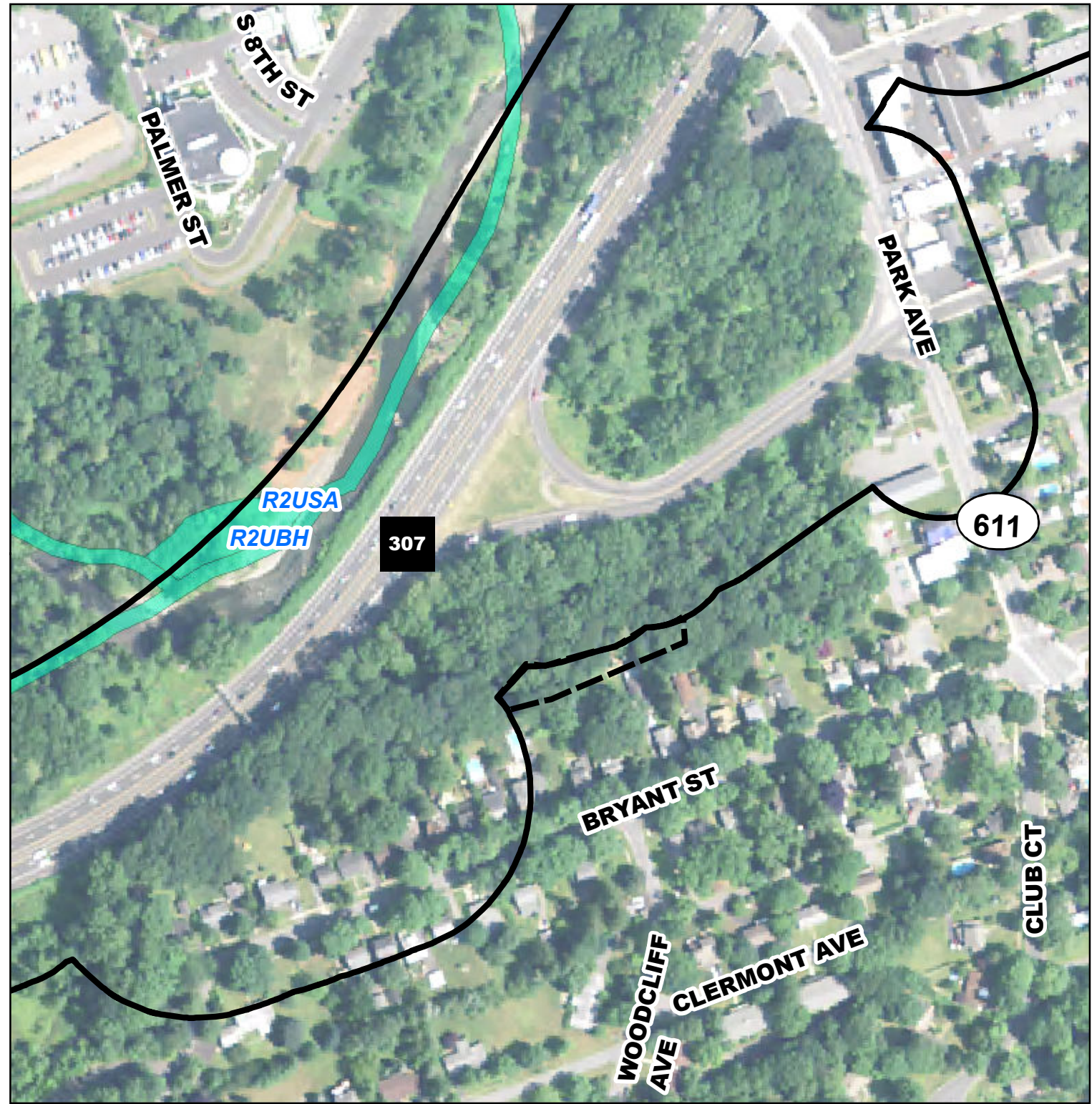
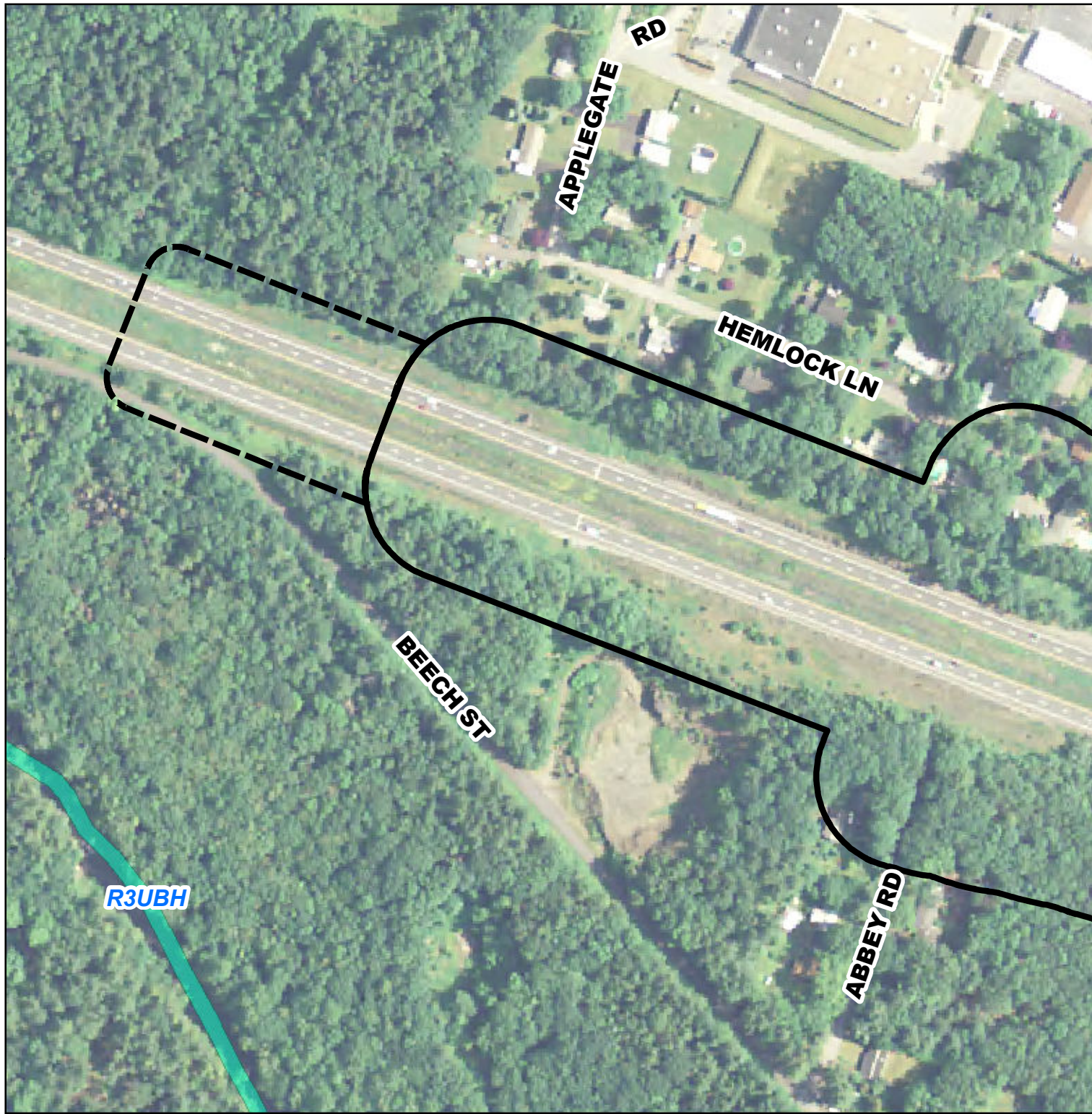






**FIGURE 2B: PROJECT AREA SOILS**



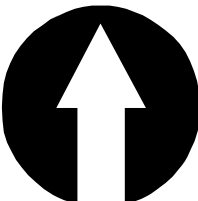

Source: PAMAP, USDA NRCS.





-  2019 Water Resources Study Area
-  Prior Water Resources Study Area
-  Riverine
-  Exit

Source: PAMAP, 2008, NWI.

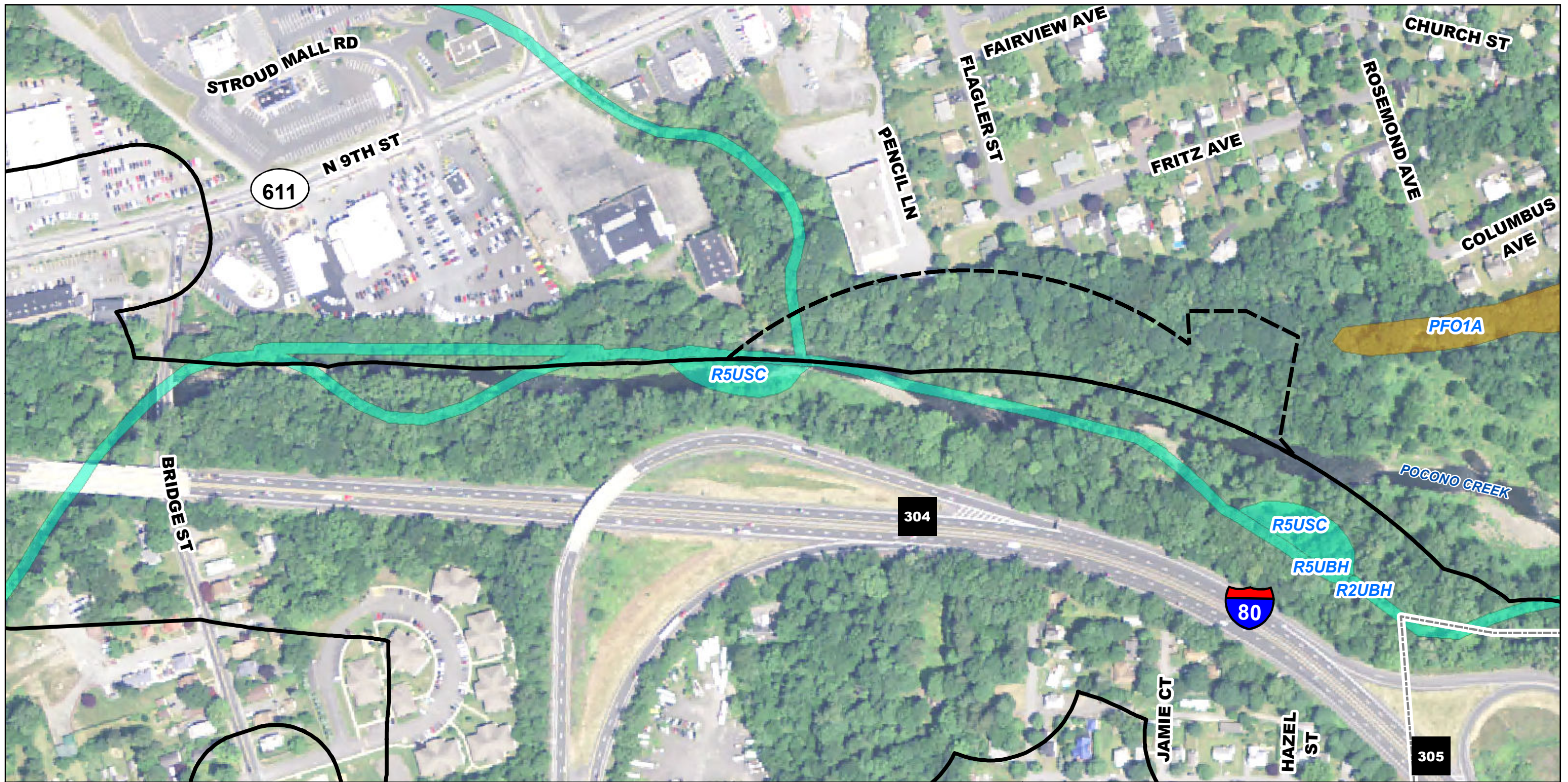
0 125 250  
Feet

Print Date: 7/1/2019

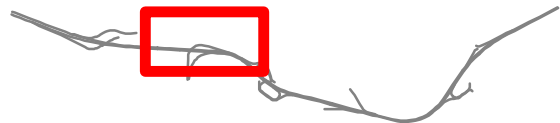
 **I-80 RECONSTRUCTION**


**FIGURE 3A: PROJECT AREA  
NWI WETLANDS**


  **AECOM**




**SHEET KEY**



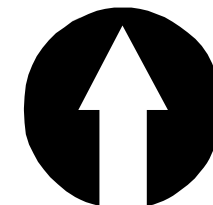
 2019 Water Resources Study Area

 Prior Water Resources Study Area

 Freshwater Forested/Shrub Wetland

 Riverine

 Exit



0 125 250  
Feet

Print Date: 7/1/2019



**I-80 RECONSTRUCTION**

**FIGURE 3B: PROJECT AREA  
NWI WETLANDS**



Source: PAMAP, 2008, NWI.

## **B. Watercourses**

Field investigations of the 2019 expanded project areas conducted on May 8, 2018 identified the presence of three new watercourses (**Figure 4**) and extended the delineated extent of one previously surveyed watercourse. **Appendix B** contains color photographs of the watercourses.

**Watercourse WW-3-00 (Pocono Creek) (Figure 4B)** – This watercourse is a previously delineated resource that extends into the Exit 304 Ramp I Area. Approximately 1,432 feet of delineated channel was added along the northern stream bank. Pocono Creek is a perennial tributary flowing to McMichael Creek (WW-2-00). Within the 2019 expanded study area, Pocono Creek flows east and parallel to the northern side of I-80. Pocono Creek also extends outside of the expanded study area to the east and west. The streambed is relatively consistent in substrate composed of sand, silt, cobble sized rock, boulders, and woody debris.

**Watercourse WW-3-04 (Flagler Run) (Figure 4B)** – This watercourse is a newly identified watercourse that extends into the Exit 304 Ramp I Area. Approximately 119 feet of delineated channel exists within the 2019 expanded study area. Flagler Run is a perennial tributary to Pocono Creek (Watercourse WW-3-00). It flows from north to south entering the project area north of Exit 304 as it flows from a culvert carrying it beneath the Stroud Mall property and SR 611. The confluence of Flagler Run and Pocono Creek is within the 2019 expanded study area; however, Flagler Run continues north outside of the study area. Substrate consists of gravel, cobble, boulders, and woody debris as it empties into Pocono Creek.

**Watercourse WW-3-20 (Unnamed Tributary to Pocono Creek) (Figure 4B)** – This is a newly identified watercourse originating from a concentrated flow of stormwater from an adjacent parking lot in the Exit 304 Ramp I Area. This stream has no hydrology source other than the stormwater runoff, and the stream has a direct connection to Pocono Creek. Approximately 375 feet of delineated channel exists within the 2019 expanded study area. The entire length of the watercourse is contained within the 2019 expanded study area.

**Watercourse WW-3-21 (Unnamed Tributary to Wigwam Run) (Figure 4A)** – This is a newly identified watercourse within the I-80 Western Extension Area that daylights between existing culverts carrying the resource under I-80 and Beech Street (T707). Approximately 12 feet of delineated channel was added to the project mapping during the 2019 expansion. WW-3-21 is a perennial tributary flowing south to Pocono Creek (WW-3-00). The watercourse extends outside of the study area to the northwest and southeast. The streambed substrate is composed of silt, sand, gravel, cobbles, and woody debris.

**Table 3: Watercourse Summary**

Watercourse ID	Length (linear feet)	Watercourse Type <sup>2</sup>	Flow Regime	Avg. Width (feet)	Ch. 93 Designated (Existing) Use <sup>3</sup>	PFBC Trout Classifications
<b>WW-3-00 (Pocono Creek)</b>	1,432	RPW	Perennial	102	HQ-CWF, MF	Stocked, Class A Wild
<b>WW-3-04 (Flagler Run)</b>	119	RPW	Perennial	14	HQ-CWF, MF	Stocked, Wild
<b>WW-3-20 (UNT<sup>1</sup> to Pocono Creek)</b>	375	Non-RPW	Ephemeral	15	HQ-CWF, MF	Stocked, Wild
<b>WW-3-21 (UNT<sup>1</sup> to Wigwam Run)</b>	12	RPW	Perennial	5	HQ-CWF, MF	Stocked, Class A Wild

<sup>1</sup>UNT = Unnamed tributary

<sup>2</sup>RPW = Relatively permanent water body

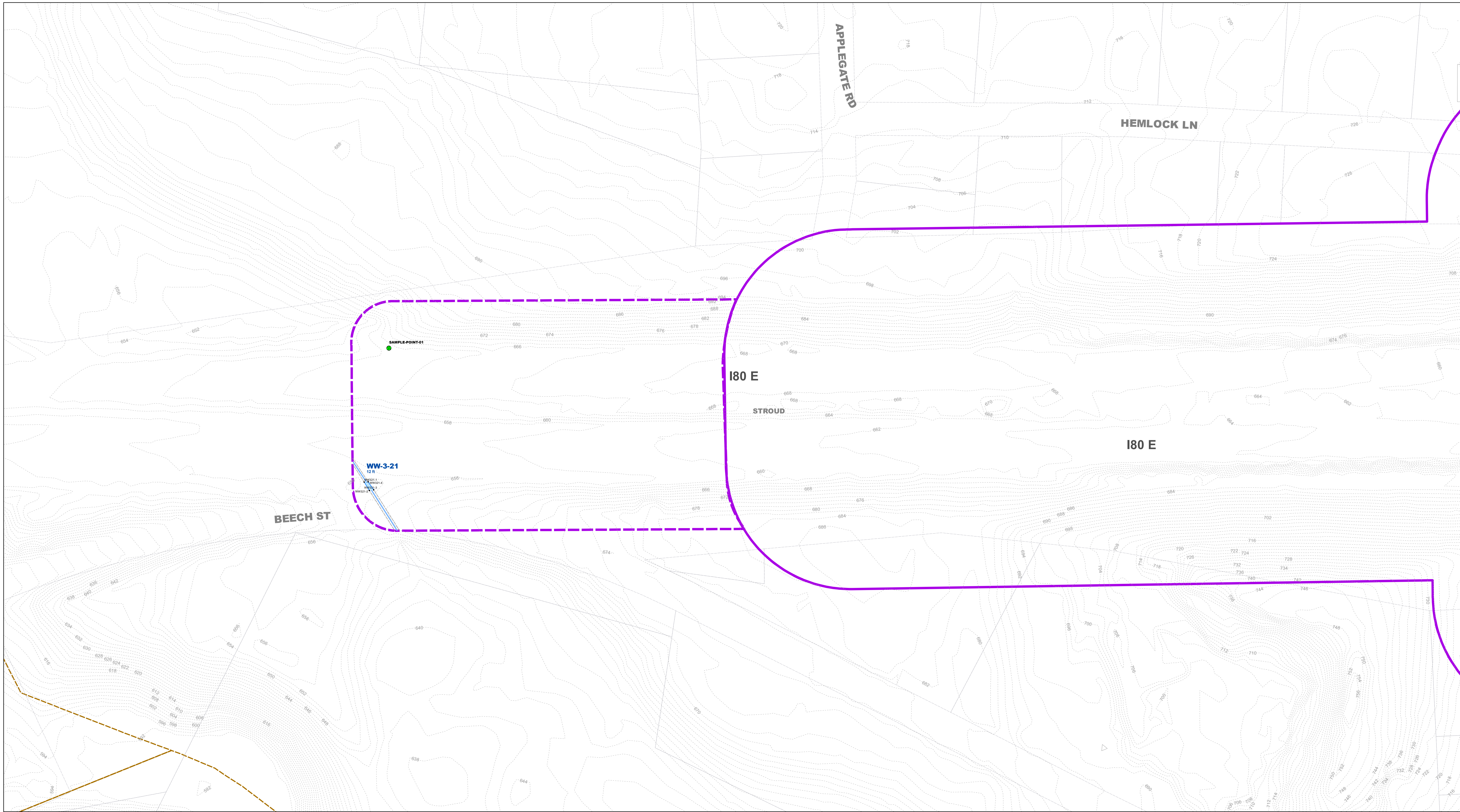
<sup>3</sup>HQ-CWF, MF = High quality-cold water fishes, migratory fishes

### C. Wetlands

Field investigations of the 2019 expanded project areas conducted on May 8, 2019 did not identify any new wetland systems within the expanded study areas (**Figure 4**). **Appendices A** and **B** contain field data sheets from the investigation and color photographs of the upland areas surveyed.





## IV. Summary




During field investigations conducted on May 8, 2019 of the I-80 Section 17M Reconstruction Project 2019 expanded study area, AECOM biologists extended the delineated limits of one previously surveyed watercourse and delineated three new watercourses. No new wetlands were identified.

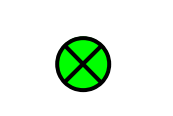



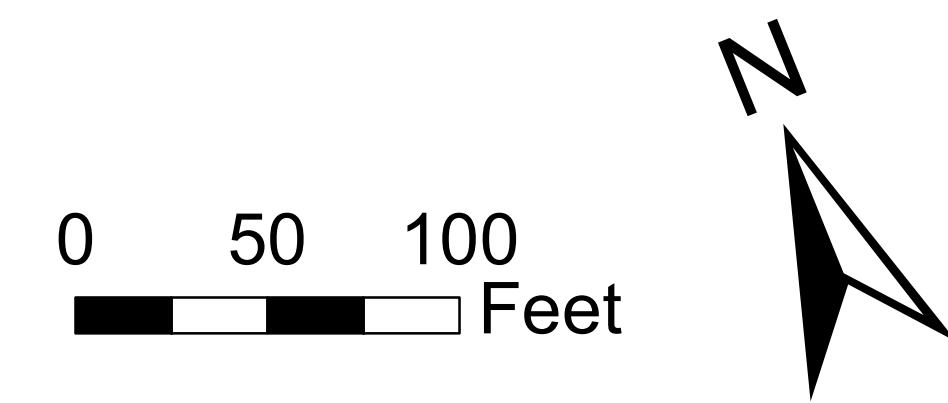
**I-80 RECONSTRUCTION**  
**FIGURE 4A**  
**WETLANDS & WATERWAYS**

Print Date: 7/11/2019

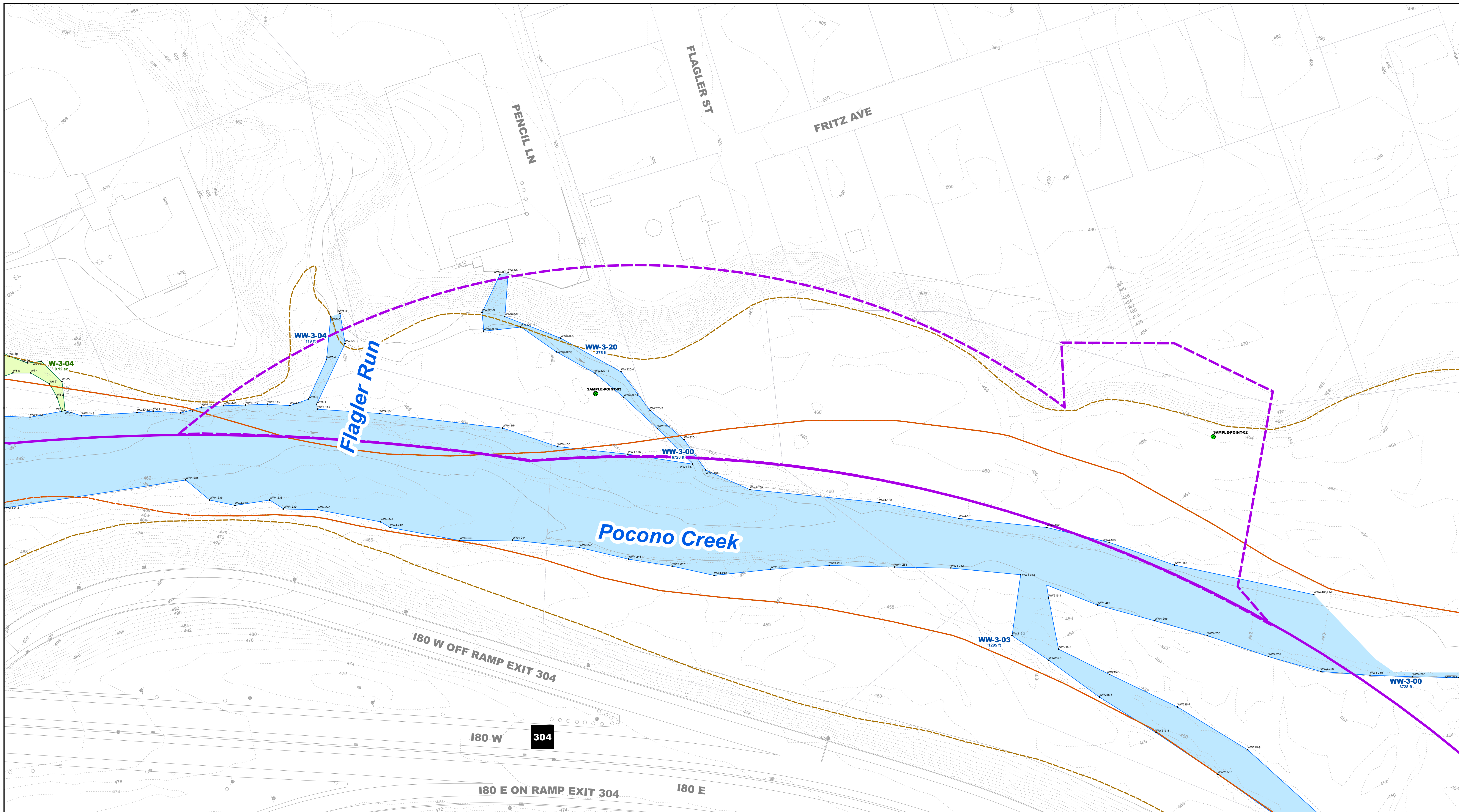
-  2019 Water Resources Study Area
-  Prior Water Resources Study Area
-  Ordinary High Water Mark
-  Limit of Wetland

-  FEMA 100 yr Floodplain
-  FEMA Floodway
-  Survey Flag

-  2019 Sample Locations
-  Exit



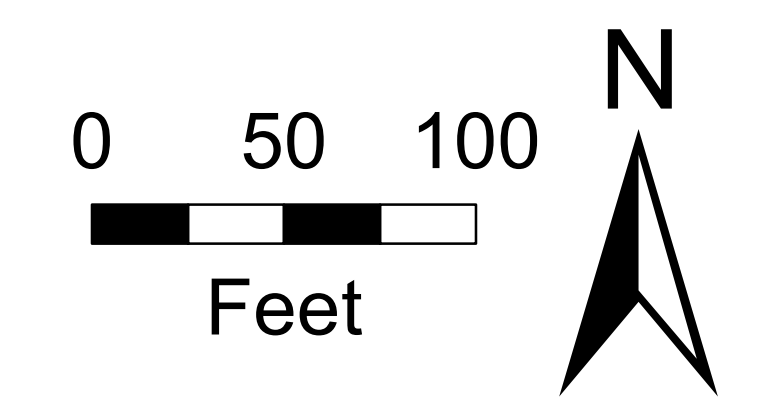
Wetland and Waterway Boundaries Delineated by: AECOM; October 2013 to May 2014 & October 2017, June 2019.  
 Surveyed by: Susquehanna Civil Inc.; October 2013 to May 2014 and February 2016.



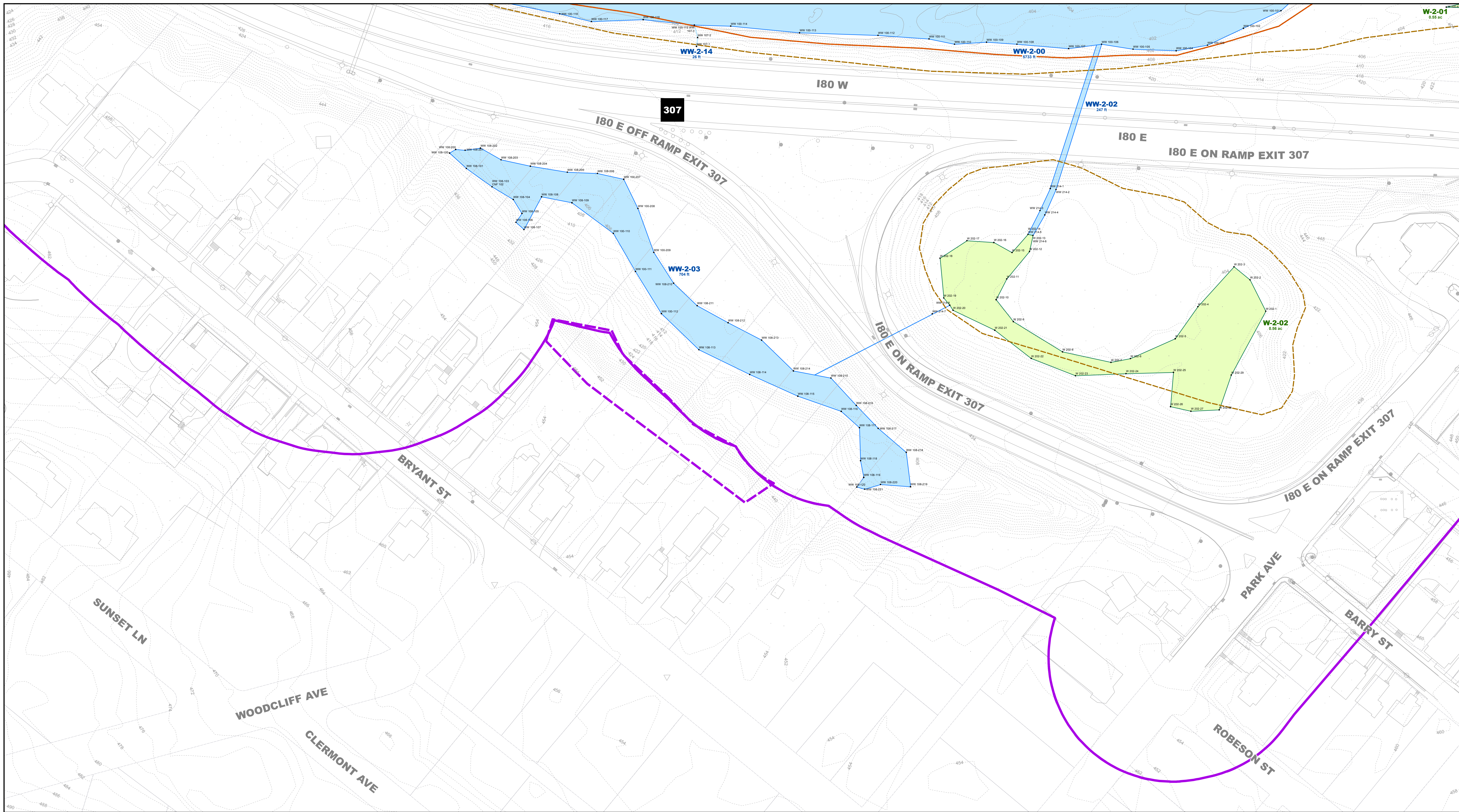
**I-80 RECONSTRUCTION**  
**FIGURE 4B**  
**WETLANDS & WATERWAYS**

Print Date: 7/2/2019

- 2019 Water Resources Study Area
- Prior Water Resources Study Area
- Ordinary High Water Mark
- Limit of Wetland
- FEMA 100 yr Floodplain
- FEMA Floodway
- Survey Flag
- X 2019 Sample Locations
- ### Exit



Wetland and Waterway Boundaries Delineated by: AECOM; October 2013 to May 2014 & October 2017, June 2019.  
 Surveyed by: Susquehanna Civil Inc.; October 2013 to May 2014 and February 2016.



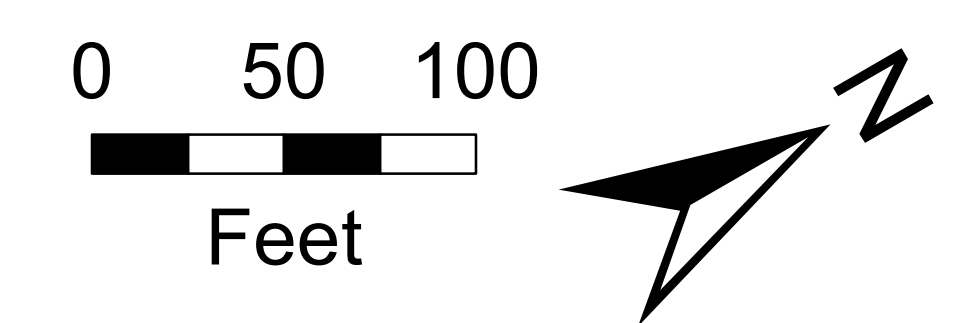
**I-80 RECONSTRUCTION**  
**FIGURE 4C**  
**WETLANDS & WATERWAYS**

Print Date: 7/2/2019

- 2019 Water Resources Study Area
- Prior Water Resources Study Area
- Ordinary High Water Mark
- Limit of Wetland

- FEMA 100 yr Floodplain
- FEMA Floodway
- Survey Flag

- ⊗ 2019 Sample Locations
- ### Exit



Wetland and Waterway Boundaries Delineated by: AECOM, October 2013 to May 2014 & October 2017, June 2019.  
 Surveyed by: Susquehanna Civil Inc., October 2013 to May 2014 and February 2016.

## V. Technical References and Material

- AECOM. 2015. *Interstate 80, Section 17M Water Resources Delineation Report*.
- AECOM. 2018. *Interstate 80, Section 17M Water Resources Delineation Report – 2018 Addendum Expanded Study Area*.
- Cowardin, L.M., V. Carter, F.C. Golet, E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/wetlands/classwet/index.htm> (Version 04DEC1998).
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 wetland ratings*. *Phytoneuron* 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.
- Natural Resources Conservation Service, United States Department of Agriculture. *Web Soil Survey*. Available online at <https://websoilsurvey.sc.egov.usda.gov/>. Accessed June 2019.
- Pennsylvania Code, 25 Pa. Code § 93.9c. Available online at <http://www.pacode.com/>. Accessed June 2019.
- Pennsylvania Fish and Boat Commission. *Trout Water Classifications*. Available online at <https://www.fishandboat.com/Fish/PennsylvaniaFishes/Trout/Pages/TroutWaterClassifications.aspx>. Accessed July 2019.
- U.S. Army Corps of Engineers. 2008. *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States*.
- U.S. Army Corps of Engineers. 2011. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, C. V. Noble, and J. F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Fish and Wildlife Service. 2019. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. <http://www.fws.gov/wetlands/>
- U.S. Geological Survey, United States Department of Interior. 7.5 Minute Topographic Quadrangle: Stroudsburg, PA.



## **Appendix A**

### **Wetland Determination Data Forms**

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: I-80 Reconstruction City/County: Monroe Sampling Date: 08-May-19  
 Applicant/Owner: Pennsylvania Department of Transportation State: PA Sampling Point: 1  
 Investigator(s): J Moore, J Redding Section, Township, Range: S. \_\_\_\_\_ T. Stroud R. \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): concave Slope: 8.0 % / 4.6 °  
 Subregion (LRR or MLRA): LRR R Lat.: 40.992683 Long.: -75.252703 Datum: NAD83  
 Soil Map Unit Name: Cy - cut and fill land 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**  **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? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/> Hydric Soil Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/> Wetland Hydrology Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>
Remarks: (Explain alternative procedures here or in a separate report.) Typical upland conditions at I-80 Western Extension Area. Grass swale along steep slope adjacent to I-80.	

**Hydrology**

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one required; check all that apply)</u> <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 along 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)	<u>Secondary Indicators (minimum of 2 required)</u> <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 checked="" 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 <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____	
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____	Wetland Hydrology Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>

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

Remarks:  
 Swale, sloping down to a stream outside of the study area.

VEGETATION - Use scientific names of plants

Sampling Point: 1

Tree Stratum (Plot size: 30 ft radius )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u><i>Acer saccharum</i></u>	11	<input checked="" type="checkbox"/>	FACU	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. <u><i>Quercus rubra</i></u>	13	<input checked="" type="checkbox"/>	FACU	
3. <u><i>Rhus glabra</i></u>	9	<input checked="" type="checkbox"/>	UPL	
4. <u><i>Prunus serotina</i></u>	5	<input type="checkbox"/>	FACU	
5. <u><i>Juniperus virginiana</i></u>	4	<input type="checkbox"/>	FACU	
6. _____	0	<input type="checkbox"/>	_____	
7. _____	0	<input type="checkbox"/>	_____	
42 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ <b>OBL species</b> <u>0</u> x 1 = <u>0</u> <b>FACW species</b> <u>0</u> x 2 = <u>0</u> <b>FAC species</b> <u>0</u> x 3 = <u>0</u> <b>FACU species</b> <u>165</u> x 4 = <u>660</u> <b>UPL species</b> <u>12</u> x 5 = <u>60</u> <b>Column Totals:</b> <u>177</u> (A) <u>720</u> (B)  Prevalence Index = B/A = <u>4.068</u>
Sapling/Shrub Stratum (Plot size: 15 ft radius )				
1. <u><i>Elaeagnus umbellata</i></u>	3	<input checked="" type="checkbox"/>	UPL	
2. <u><i>Lonicera tatarica</i></u>	4	<input checked="" type="checkbox"/>	FACU	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
6. _____	0	<input type="checkbox"/>	_____	
7. _____	0	<input type="checkbox"/>	_____	
7 = Total Cover				
Herb Stratum (Plot size: 5 ft radius )				
1. <u><i>Poa pratensis</i></u>	44	<input checked="" type="checkbox"/>	FACU	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is > 50% <input type="checkbox"/> Prevalence Index is $\leq 3.0$ <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Alliaria petiolata</i></u>	35	<input checked="" type="checkbox"/>	FACU	
3. <u><i>Phytolacca americana</i></u>	9	<input type="checkbox"/>	FACU	
4. <u><i>Allium vineale</i></u>	7	<input type="checkbox"/>	FACU	
5. <u><i>Ambrosia artemisiifolia</i></u>	33	<input checked="" type="checkbox"/>	FACU	
6. _____	0	<input type="checkbox"/>	_____	
7. _____	0	<input type="checkbox"/>	_____	
8. _____	0	<input type="checkbox"/>	_____	
9. _____	0	<input type="checkbox"/>	_____	
10. _____	0	<input type="checkbox"/>	_____	
11. _____	0	<input type="checkbox"/>	_____	
12. _____	0	<input type="checkbox"/>	_____	
128 = Total Cover				
Woody Vine Stratum (Plot size: 30 ft radius )				
1. _____	0	<input type="checkbox"/>	_____	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 (1m) tall..  Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine - All woody vines greater than 3.28 ft in height.
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
0 = Total Cover				
				Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>

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

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.



**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: I-80 Reconstruction City/County: Monroe Sampling Date: 08-May-19  
 Applicant/Owner: Pennsylvania Department of Transportation State: PA Sampling Point: 2  
 Investigator(s): J Moore, J Redding Section, Township, Range: S. \_\_\_\_\_ T. Stroud R. \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave Slope: 0.0 % / 0.0 °  
 Subregion (LRR or MLRA): LRR R Lat.: 40.985932 Long.: -75.216172 Datum: NAD83  
 Soil Map Unit Name: Po - Pope silt loam 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**  **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? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/> Hydric Soil Present? <b>Yes</b> <input checked="" type="radio"/> <b>No</b> <input type="radio"/> Wetland Hydrology Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>
Remarks: (Explain alternative procedures here or in a separate report.) Upland floodplain - concave area at base of hillslope. Residential area above on terrace. Sampling point on lower floodplain terrace.	

**Hydrology**

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one required; check all that apply)</u> <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 along 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)	<u>Secondary Indicators (minimum of 2 required)</u> <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 checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-neutral Test (D5)
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Field Observations:

Surface Water Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/> (includes capillary fringe)	Depth (inches): _____

Wetland Hydrology Present? **Yes**  **No**

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

Remarks:  
 No saturation. Pocono Creek is incised and 5-10 feet below floodplain in this area.

VEGETATION - Use scientific names of plants

Sampling Point: 2

Tree Stratum (Plot size: 30 ft radius )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																													
1. <i>Juglans nigra</i>	25	<input checked="" type="checkbox"/>	FACU	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																																													
2. <i>Prunus serotina</i>	9	<input type="checkbox"/>	FACU																																														
3. <i>Quercus rubra</i>	7	<input type="checkbox"/>	FACU																																														
4. <i>Acer saccharum</i>	35	<input checked="" type="checkbox"/>	FACU																																														
5. <i>Tilia americana</i>	11	<input type="checkbox"/>	FACU																																														
6. _____	0	<input type="checkbox"/>	_____																																														
7. _____	0	<input type="checkbox"/>	_____																																														
Sapling/Shrub Stratum (Plot size: 15 ft radius ) <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:35%;"></td> <td style="width:10%; text-align: right;">87</td> <td style="width:10%;">= Total Cover</td> <td style="width:10%;"></td> <td style="width:35%;"></td> </tr> </table>					87	= Total Cover			Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:35%;"></td> <td style="width:10%; text-align: right;">Total % Cover of:</td> <td style="width:10%;"></td> <td style="width:10%; text-align: right;">Multiply by:</td> <td style="width:35%;"></td> </tr> <tr> <td><b>OBL species</b></td> <td style="text-align: right;"><u>24</u></td> <td></td> <td style="text-align: right;"><b>x 1 =</b></td> <td style="text-align: right;"><u>24</u></td> </tr> <tr> <td><b>FACW species</b></td> <td style="text-align: right;"><u>2</u></td> <td></td> <td style="text-align: right;"><b>x 2 =</b></td> <td style="text-align: right;"><u>4</u></td> </tr> <tr> <td><b>FAC species</b></td> <td style="text-align: right;"><u>8</u></td> <td></td> <td style="text-align: right;"><b>x 3 =</b></td> <td style="text-align: right;"><u>24</u></td> </tr> <tr> <td><b>FACU species</b></td> <td style="text-align: right;"><u>195</u></td> <td></td> <td style="text-align: right;"><b>x 4 =</b></td> <td style="text-align: right;"><u>780</u></td> </tr> <tr> <td><b>UPL species</b></td> <td style="text-align: right;"><u>0</u></td> <td></td> <td style="text-align: right;"><b>x 5 =</b></td> <td style="text-align: right;"><u>0</u></td> </tr> <tr> <td><b>Column Totals:</b></td> <td style="text-align: right;"><u>229</u></td> <td style="text-align: right;"><b>(A)</b></td> <td></td> <td style="text-align: right;"><u>832</u> <b>(B)</b></td> </tr> <tr> <td colspan="5" style="text-align: right;">Prevalence Index = B/A = <u>3.633</u></td> </tr> </table>		Total % Cover of:		Multiply by:		<b>OBL species</b>	<u>24</u>		<b>x 1 =</b>	<u>24</u>	<b>FACW species</b>	<u>2</u>		<b>x 2 =</b>	<u>4</u>	<b>FAC species</b>	<u>8</u>		<b>x 3 =</b>	<u>24</u>	<b>FACU species</b>	<u>195</u>		<b>x 4 =</b>	<u>780</u>	<b>UPL species</b>	<u>0</u>		<b>x 5 =</b>	<u>0</u>	<b>Column Totals:</b>	<u>229</u>	<b>(A)</b>		<u>832</u> <b>(B)</b>	Prevalence Index = B/A = <u>3.633</u>				
	87	= Total Cover																																															
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<b>OBL species</b>	<u>24</u>		<b>x 1 =</b>	<u>24</u>																																													
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Prevalence Index = B/A = <u>3.633</u>																																																	
Herb Stratum (Plot size: 5 ft radius ) <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:35%;"></td> <td style="width:10%; text-align: right;">3</td> <td style="width:10%;">= Total Cover</td> <td style="width:10%;"></td> <td style="width:35%;"></td> </tr> </table>					3	= Total Cover			Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is > 50% <input type="checkbox"/> Prevalence Index is $\leq 3.0$ <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																								
	3	= Total Cover																																															
1. <i>Fallopia japonica</i>	65	<input checked="" type="checkbox"/>	FACU																																														
2. <i>Symplocarpus foetidus</i>	24	<input type="checkbox"/>	OBL																																														
3. <i>Allium vineale</i>	10	<input type="checkbox"/>	FACU																																														
4. <i>Arisaema triphyllum</i>	8	<input type="checkbox"/>	FAC																																														
5. <i>Alliaria petiolata</i>	30	<input checked="" type="checkbox"/>	FACU																																														
6. <i>Impatiens capensis</i>	2	<input type="checkbox"/>	FACW																																														
7. _____	3	<input type="checkbox"/>	_____																																														
8. _____	0	<input type="checkbox"/>	_____																																														
9. _____	0	<input type="checkbox"/>	_____																																														
10. _____	0	<input type="checkbox"/>	_____																																														
11. _____	0	<input type="checkbox"/>	_____																																														
12. _____	0	<input type="checkbox"/>	_____																																														
Woody Vine Stratum (Plot size: 30 ft radius ) <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:35%;"></td> <td style="width:10%; text-align: right;">142</td> <td style="width:10%;">= Total Cover</td> <td style="width:10%;"></td> <td style="width:35%;"></td> </tr> </table>					142	= Total Cover			Definitions of Vegetation Strata:  Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..  Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine - All woody vines greater than 3.28 ft in height.																																								
	142	= Total Cover																																															
1. _____	0	<input type="checkbox"/>	_____																																														
2. _____	0	<input type="checkbox"/>	_____																																														
3. _____	0	<input type="checkbox"/>	_____																																														
4. _____	0	<input type="checkbox"/>	_____																																														
0 = Total Cover				Hydrophytic Vegetation Present?    Yes <input type="radio"/> No <input checked="" type="radio"/>																																													

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

Unknown species of grass (3%) did not have inflorescence at time of investigation and therefore was unidentifiable to species.

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: 2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0-4	10YR	4/1	100				Silt Loam		
4-4.5	10YR	5/3	100				Silt Loam		
4.5-5.5	10YR	2/1	100				Silt Loam		
5.5-16+	10YR	4/2	90	10YR	5/6	10	C	M	Silt Loam

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

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	Indicators for Problematic Hydric Soils : <sup>3</sup>
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) LRR K, L)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Muck Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		
<input type="checkbox"/> Sandy Redox (S5)		
<input type="checkbox"/> Stripped Matrix (S6)		
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		

<sup>3</sup> 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:  
 Typical floodplain soil.

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: I-80 Reconstruction City/County: Monroe Sampling Date: 08-May-19  
 Applicant/Owner: Pennsylvania Department of Transportation State: PA Sampling Point: 3  
 Investigator(s): J Moore, J Redding Section, Township, Range: S. \_\_\_\_\_ T. Stroud R. \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): none Slope: 0.0 % / 0.0 °  
 Subregion (LRR or MLRA): LRR R Lat.: 40.986175 Long.: -75.21875 Datum: NAD83  
 Soil Map Unit Name: Ph - Philo silt loam 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**  **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? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/> Hydric Soil Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/> Wetland Hydrology Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>
Remarks: (Explain alternative procedures here or in a separate report.) Upland floodplain adjacent to Watercourse WW-3-20.	

**Hydrology**

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one required; check all that apply)</u> <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 along 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)	<u>Secondary Indicators (minimum of 2 required)</u> <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 checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-neutral Test (D5)
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Field Observations:

Surface Water Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? <b>Yes</b> <input type="radio"/> <b>No</b> <input checked="" type="radio"/> (includes capillary fringe)	Depth (inches): _____

Wetland Hydrology Present? **Yes**  **No**

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

Remarks:  
 well drained



VEGETATION - Use scientific names of plants


Sampling Point: 3


Tree Stratum (Plot size: 30 ft radius )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u><i>Acer saccharum</i></u>	55	<input checked="" type="checkbox"/>	FACU	Number of Dominant Species That are OBL, FACW, or FAC:	<u>1</u> (A)
2. <u><i>Platanus occidentalis</i></u>	45	<input checked="" type="checkbox"/>	FACW	Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3. <u><i>Tilia americana</i></u>	5	<input type="checkbox"/>	FACU	Percent of dominant Species That Are OBL, FACW, or FAC:	<u>25.0%</u> (A/B)
4. _____	0	<input type="checkbox"/>	_____		
5. _____	0	<input type="checkbox"/>	_____		
6. _____	0	<input type="checkbox"/>	_____		
7. _____	0	<input type="checkbox"/>	_____		
<b>Sapling/Shrub Stratum (Plot size: 15 ft radius )</b>				Prevalence Index worksheet:	
105 = Total Cover				Total % Cover of: _____ Multiply by: _____	
1. <u><i>Acer saccharum</i></u>	4	<input type="checkbox"/>	FACU	<b>OBL species</b>	<u>2</u> x 1 = <u>2</u>
2. _____	0	<input type="checkbox"/>	_____	<b>FACW species</b>	<u>46</u> x 2 = <u>92</u>
3. _____	0	<input type="checkbox"/>	_____	<b>FAC species</b>	<u>13</u> x 3 = <u>39</u>
4. _____	0	<input type="checkbox"/>	_____	<b>FACU species</b>	<u>165</u> x 4 = <u>660</u>
5. _____	0	<input type="checkbox"/>	_____	<b>UPL species</b>	<u>0</u> x 5 = <u>0</u>
6. _____	0	<input type="checkbox"/>	_____	<b>Column Totals:</b>	<u>226</u> (A) <u>793</u> (B)
7. _____	0	<input type="checkbox"/>	_____	Prevalence Index = B/A = <u>3.509</u>	
<b>Herb Stratum (Plot size: 5 ft radius )</b>				Hydrophytic Vegetation Indicators:	
4 = Total Cover				<input type="checkbox"/> Rapid Test for Hydrophytic Vegetation	
1. <u><i>Fallopia japonica</i></u>	36	<input checked="" type="checkbox"/>	FACU	<input type="checkbox"/> Dominance Test is > 50%	
2. <u><i>Alliaria petiolata</i></u>	65	<input checked="" type="checkbox"/>	FACU	<input type="checkbox"/> Prevalence Index is $\leq 3.0$ <sup>1</sup>	
3. <u><i>Arisaema triphyllum</i></u>	8	<input type="checkbox"/>	FAC	<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
4. <u><i>Toxicodendron radicans</i></u>	5	<input type="checkbox"/>	FAC	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
5. <u><i>Veratrum viride</i></u>	1	<input type="checkbox"/>	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
6. <u><i>Symplocarpus foetidus</i></u>	2	<input type="checkbox"/>	OBL		
7. _____	0	<input type="checkbox"/>	_____		
8. _____	0	<input type="checkbox"/>	_____		
9. _____	0	<input type="checkbox"/>	_____		
10. _____	0	<input type="checkbox"/>	_____		
11. _____	0	<input type="checkbox"/>	_____		
12. _____	0	<input type="checkbox"/>	_____		
<b>Woody Vine Stratum (Plot size: 30 ft radius )</b>				Definitions of Vegetation Strata:	
117 = Total Cover				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
1. _____	0	<input type="checkbox"/>	_____	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..	
2. _____	0	<input type="checkbox"/>	_____	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
3. _____	0	<input type="checkbox"/>	_____	Woody vine - All woody vines greater than 3.28 ft in height.	
4. _____	0	<input type="checkbox"/>	_____		
0 = Total Cover				Hydrophytic Vegetation Present?    Yes <input type="radio"/> No <input checked="" type="radio"/>	
Remarks: (Include photo numbers here or on a separate sheet.) Vitis (vine) 10% cover, was unidentifiable to species due to lack of visible leaves, flowers, or fruit. As a result it was not assigned an indicator status or included in the dominance test.					

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.





**Appendix B**  
**Site Photographs**


<b>Photograph:</b> 1	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Watercourse WW-3-00		
<b>Direction:</b> West (Upstream)		
<b>Description:</b>  View of Watercourse Pocono Creek (WW-3-00) facing upstream.		

<b>Photograph:</b> 2	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Watercourse WW-3-00		
<b>Direction:</b> East (Downstream)		
<b>Description:</b>  View of Watercourse Pocono Creek (WW-3-00) facing downstream.		

<b>Photograph:</b> 3	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Watercourse WW-3-04		
<b>Direction:</b> North (Upstream)		
<b>Description:</b>  View of Watercourse Flagler Run (WW-3-04) facing upstream.		


<b>Photograph:</b> 4	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Watercourse WW-3-04		
<b>Direction:</b> South (Downstream)		
<b>Description:</b>  View of Watercourse Flagler Run (WW-3-04) facing downstream.		

<b>Photograph:</b> 5	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Watercourse WW-3-20		
<b>Direction:</b> Northwest (Upstream)		
<b>Description:</b>  View of Watercourse UNT to Pocono Creek (WW-3-20) facing upstream.		

<b>Photograph:</b> 6	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Watercourse WW-3-20		
<b>Direction:</b> Southeast (Downstream)		
<b>Description:</b>  View of Watercourse UNT to Pocono Creek (WW-3-20) facing downstream.		


<b>Photograph:</b> 7	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Watercourse WW-3-21		
<b>Direction:</b> Northwest (Upstream)		
<b>Description:</b>  View of Watercourse UNT to Wigwam Run (WW-3-21) facing upstream.		

<b>Photograph:</b> 8	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Watercourse WW-3-21		
<b>Direction:</b> Southeast (Downstream)		
<b>Description:</b>  View of Watercourse UNT to Wigwam Run (WW-3-21) facing downstream.		

<b>Photograph:</b> 9	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Upland		
<b>Direction:</b> East		
<b>Description:</b>  View of the typical upland conditions within the I-80 Western Extension Area, south of I-80.		

<b>Photograph:</b> 10	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Upland		
<b>Direction:</b> East		
<b>Description:</b>  View of the typical upland conditions within the I-80 Western Extension Area, north of I-80, at Sampling Point 1.		



<b>Photograph:</b> 11	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Upland		
<b>Direction:</b> South		
<b>Description:</b>  View of the typical upland conditions within the Exit 304 Ramp I Area, at Sampling Point 2.		

<b>Photograph:</b> 12	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Upland		
<b>Direction:</b> West		
<b>Description:</b>  View of the typical upland conditions within the Exit 304 Ramp I Area, at Sampling Point 3.		

<b>Photograph:</b> 13	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Upland		
<b>Direction:</b> Northeast		
<b>Description:</b>  View of the typical upland conditions within the Exit 307 Noise Wall Area.		

<b>Photograph:</b> 14	<b>Date:</b> 05/08/2019	
<b>Feature ID:</b> Upland		
<b>Direction:</b> Southwest		
<b>Description:</b>  View of the typical upland conditions within the Exit 307 Noise Wall Area.		