# Interstate 80, Section 17M

Water Resources Delineation Report

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July, 2014

**Revised November 2015** 

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## I. Introduction

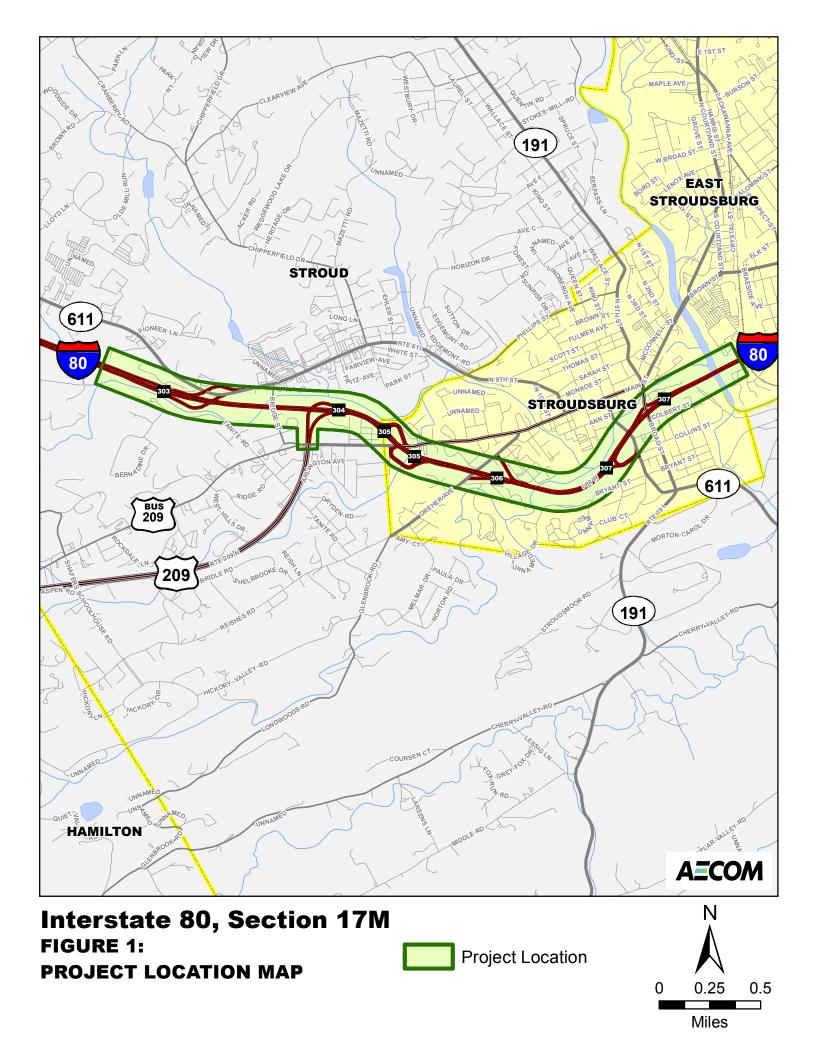
The proposed SR 0080 Section 17M Reconstruction project, a 3.5 mile roadway reconstruction traversing parts of three (3) municipalities (Stroud Township, Stroudsburg Borough and East Stroudsburg Borough) in Monroe County, Pennsylvania (*Figure 1*), is currently in the preliminary engineering and environmental clearance phase. Environmental studies are being conducted as part of the project's preliminary design efforts to fully assess the impacts the proposed project would have on environmental resources within the project area.

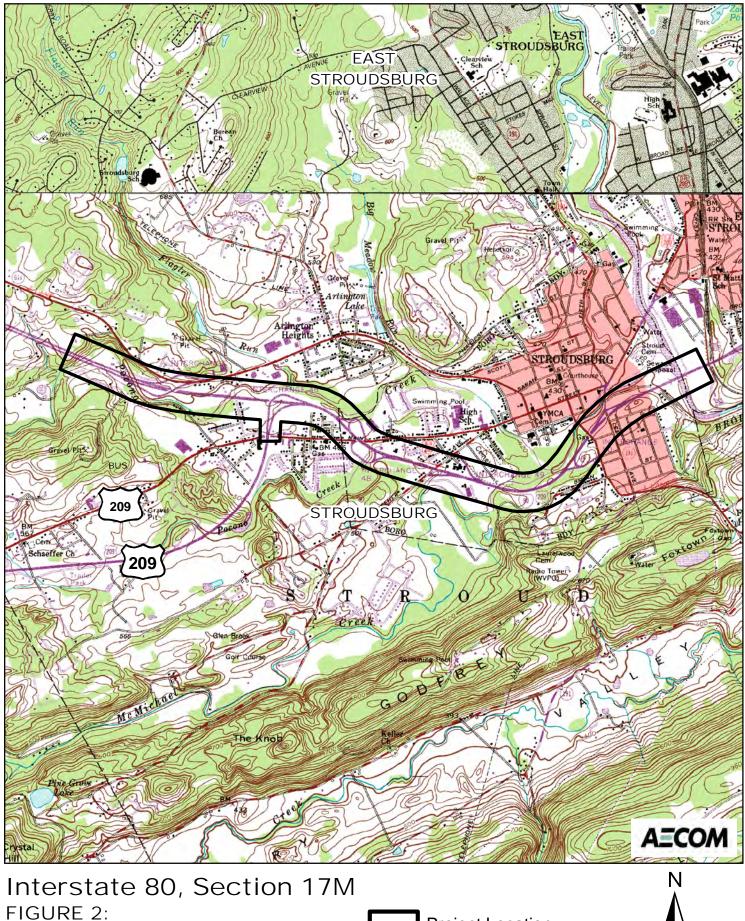
The following needs have been established for the project:

- Roadway geometry within the project area does not meet current design criteria and contributes to safety concerns.
- High traffic volumes cause congestion. Current volumes on S.R. 0080 average 70,500 vehicles per day (2013) with 10% (7050) heavy vehicles (trucks). In addition, design year projections (2045) increase these volumes to approximately 132,800 vehicles per day with 10% (13,280) heavy vehicles (trucks). The additional future traffic will increase congestion and the potential for conflicts at the interchange acceleration and deceleration ramps.
- Deteriorated roadway and bridge components cause hazardous conditions and traffic restrictions for required maintenance.
- System continuity is lacking. AASHTO design requirements for interstate systems call for all traffic movements to be available at each interchange. Exits 303, 304, and 306 provide only some of the connections available, which contributes to congestion in the region.

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 (*Figures 1 & 2*). The project area is primarily suburban and urban landscape across a rolling topography, generally paralleling McMichael Creek and Pocono Creek, 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.

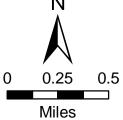
This Water Resources Delineation Report documents the presence and extent of regulated wetlands and waterways within the project area. A description of each wetland area and waterway is provided along with an evaluation of the wetland's functions and values. Wetland Delineation Forms for the identified resources are located in *Appendix A*. Photographs of the project area watercourses and wetlands are located in *Appendix B*. Function Value Evaluation Forms are located in *Appendix C*. Descriptions of project area soil types are located in *Appendix D*.





USGS QUADRANGLE MAP

Project Location



## II. Regulations & Methodology

The purpose of this study is to satisfy the requirements of the state and federal regulating agencies having jurisdictional authority over wetlands. 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.

Background data and information on identified watercourses, soils, topography and vegetation was gathered to preliminarily determine possible wetland locations within the project area. Sources of information included the, U.S.G.S. 7.5-Minute Quadrangle Mapping (*Figure 2*), the *Soil Survey of Monroe County* (*Figure 3*) and the U.S. Fish and Wildlife Service's (USFWS's) *National Wetland Inventory* (NWI) (*Figure 4*).

### A. Watercourses

Project area watercourses were preliminarily identified using available mapping. Field investigations were conducted between September and October, 2013 to confirm the presence/absence of project area watercourses. The jurisdictional limits of the field identified watercourses were delineated based on their observed Ordinary High Water Mark (OHWM). Stream order and classifications under Title 25, Chapter 93 and the Pennsylvania Fish and Boat Commission's (PAFBC's) regulation and the USACE Clean Water Act Jurisdiction Guidance (June 2007) were also identified.

### B. Wetlands

Following the preliminary review, field investigations were conducted to review the entire project area and determine if wetlands were present. In order for an area to be classified as a wetland, it must possess wetland hydrology, hydrophytic vegetation and hydric soils. The preliminary boundaries of the wetland areas possessing all three criteria were determined in accordance with the USACE *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2).* January, 2012. These boundaries were determined during field investigations conducted between September and October, 2013 and have been flagged and surveyed.

Field evaluations of the wetlands included a series of soil test pits to identify the presence and extent of hydric soil conditions and wetland hydrology. The test pits consisted of borings dug using a 3-inch soil auger. Soil colors were determined using the *Munsell Soil Color Charts*.

The dominant vegetation and plant community composition was determined by conducting a vegetation inventory at representative sample locations within and near each wetland area. Dominant species were identified for each vegetative stratum and wetland indicator status was noted. Plant wetland indicator status was determined using the USACE *National Wetland Plant List, Northcentral and Northeast Region, 2013.* Identified wetlands were classified according to *A Classification of Wetland and Deepwater Habitats of the United States* (Cowardin et. al., 1979).

The wetlands were also assessed for their functional valuestechniques of the New England District, United States Army Corps of Engineers in The HighwayMethodology Workbook – Wetland Functions and Values, A Descriptive Approach. NAEEP-360-1-30a, September 1999. A field verification was conducted with USACE in October, 2015.

### **III.** Site Description

The within Brodhead project lies the Creek (WW-1-00)area Navigable Water (TNW), which is part of the Delaware River drainage. The eastern half of the McMichael (WW-2-00) and tributaries. project area drains to Creek its The western project drains (WW-3-00) and tributaries. including area to Pocono Creek its Li Creek (WW-3-01). Pocono Creek is а tributary to **McMichael** Creek, which Brodhead Creekable 1 Chapter 93 identified Designated Use Classificapresents the to tions and PA Fish and Boat Commission (PFBC) identifications:

Stream	Zone	Chapter 93 Designated Use	Chapter 93 Existing Use	Reach	PA Fish and Boat Commission Identification
Brodhead Creek (WW-1-00)	SR 2022 Bridge to Mouth	TSF, MF	CWF, MF	Stroudsburg Water Co property to I-80 Bridge – Exit 309	Wild Trout, Stocked
McMichael Creek (WW-2-00)	T434 to Pocono Creek Pocono Creek to Mouth	HQ-CWF, MF TSF, MF	N/A	SR 2004 Bridge to mouth	Wild Trout, Stocked
Pocono Creek (WW-3-00)	Confluence of Dry Sawmill Run and Wolf Swamp Run to Mouth	HQ-CWF, MF	N/A	headwaters to Flagler Run Flagler Run to mouth	Class A - Wild Brown Trout Wild Trout, Stocked
Little Pocono Creek (WW-3-01)	source to mouth	HQ-CWF, MF	N/A	headwaters to mouth	Wild Trout
UNT to Pocono Creek (WW-3-06)	source to mouth	HQ-CWF, MF	N/A	headwaters to mouth	Wild Trout

### **Table 1: Determination of Exceptional Value Resources**

Sources: 23 Pa. Code § 93.9c.; PFBC Class A Trout Waters; PFBC Pennsylvania Wild Trout Waters (Natural Reproduction); PFBC Regulated Trout Waters

Due to the listed PFBC wild trout identifications for the project area streams, wetlands within the Brodhead Creek drainage and all tributaries within the project area are considered Exceptional Value (EV) if located in the floodplains of the streams.

### **A. Background Information**

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

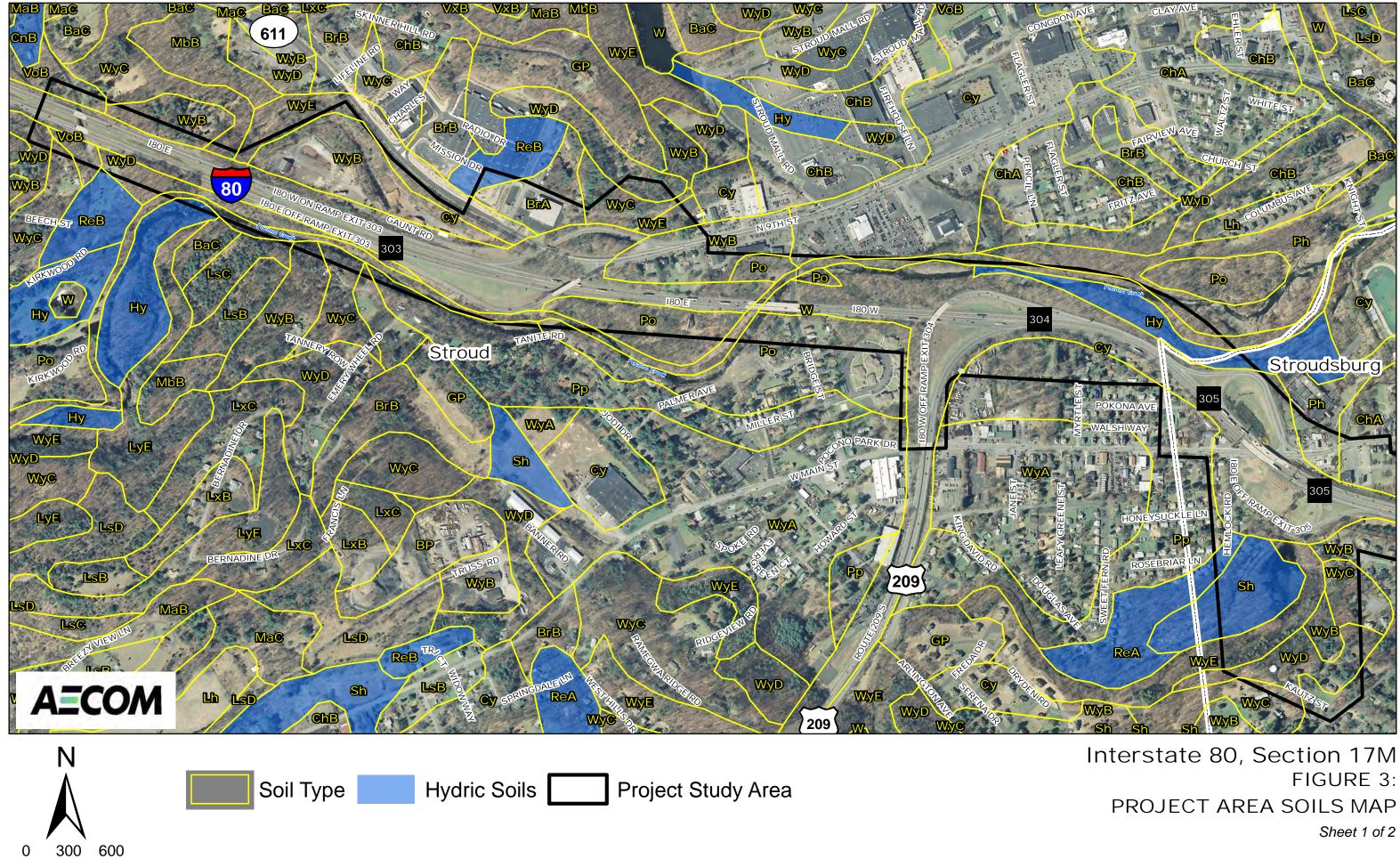
A review of the Stroudsburg, PA, U.S.G.S. 7.5-Minute Quadrangle (*Figure 2*) indicated the presence of Brodhead Creek, McMichael Creek, Pocono Creek, Little Pocono Creek and Flagler Run within or adjacent to the project area. The Soil Survey identifies the existence of five (5) soil types that are considered hydric or are known to contain hydric soil components within the project area (*Figure 3*). *Table 2* provides a brief overview of the hydric soils. A description of all the project area soils is contained in *Appendix D*.

Soil Name	Slope	Composition	Depth to Restrictive Layer (in)	Depth to Water Table (in)	Drainage Class
Chippewa and Norwich extremely stony soils (CnB)	0-8%	Chippewa and similar soils: 47%; Norwich & similar soils: 47%	10 to 24 inches to fragipan	Seasonally at 0 inches	Poorly drained
Holly silt loam (Hy)	0-3%	Holly and similar soils: 100%	More than 80 inches	Seasonally at 3 inches	Poorly drained
Rexford gravelly silt loam (ReA)	0-3%	Rexford (somewhat poorly drained): 40%; Rexford (poorly drained): 35%	15 to 24 inches to fragipan	Seasonally at 4-6 inches	Somewhat poorly drained - poorly drained
Rexford gravelly silt loam (ReB)	3-8%	Rexford (somewhat poorly drained): 50%; Rexford (poorly drained): 35%	15 to 24 inches to fragipan	Seasonally at 4-6 inches	Somewhat poorly drained - poorly drained
Sheffield silt loam (Sh)	0-3%	Sheffield and similar soils: 100%	15 to 26 inches to fragipan	Seasonally at 0 inches	Poorly drained

### **Table 2: Hydric Soils Properties**

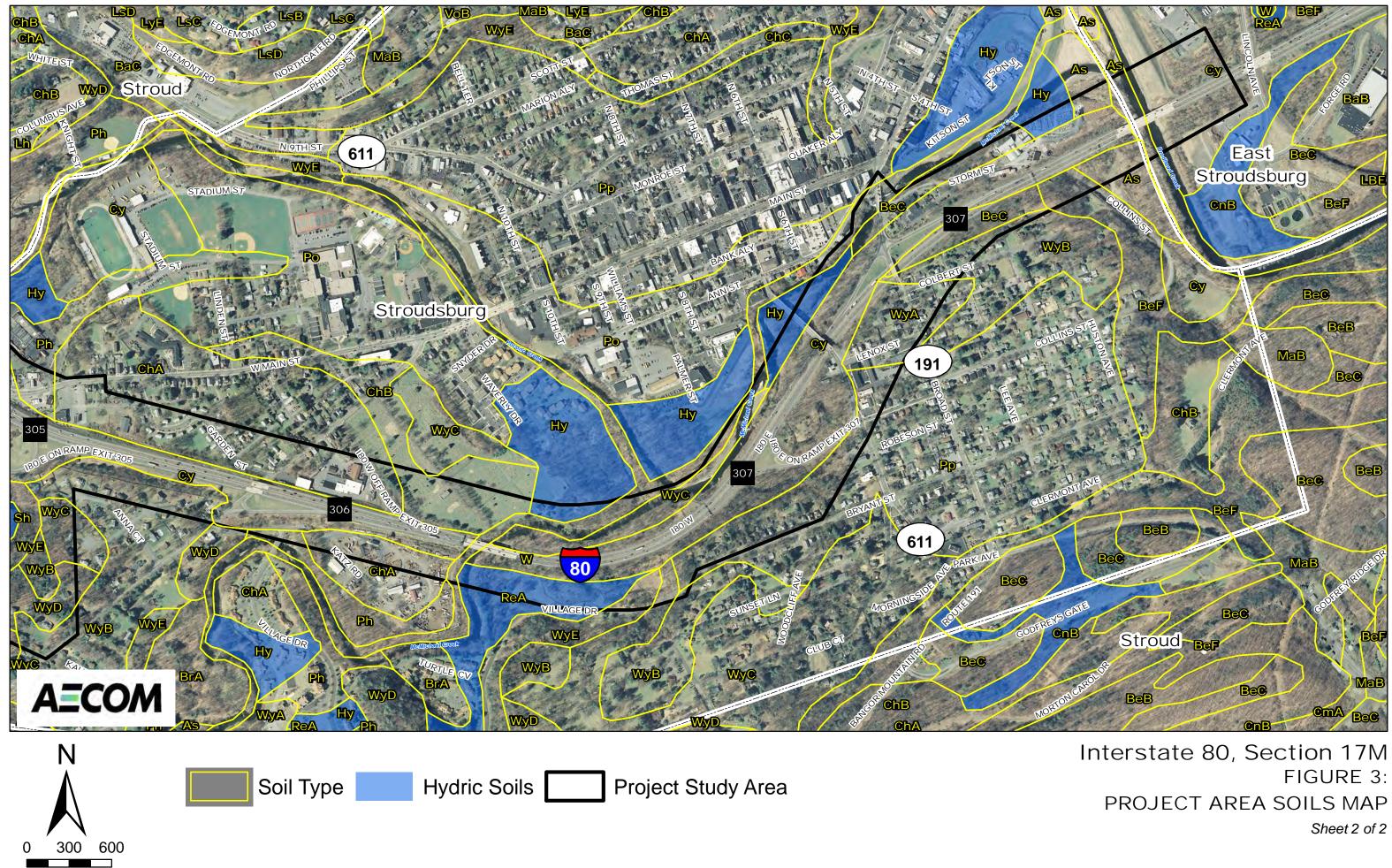
Source: Natural Resources Conservation Service, Web Soil Survey, 2014.

Review of the NWI mapping identified 2 wetland systems located within the project area (*Figure 4*). The NWI wetlands are classified as Freshwater Forested/Shrub Wetland (PFO/SS1). Additional riverine and open water systems included a Freshwater Pond (PUBHx) and upper and lower perennial and unknown perennial streams.

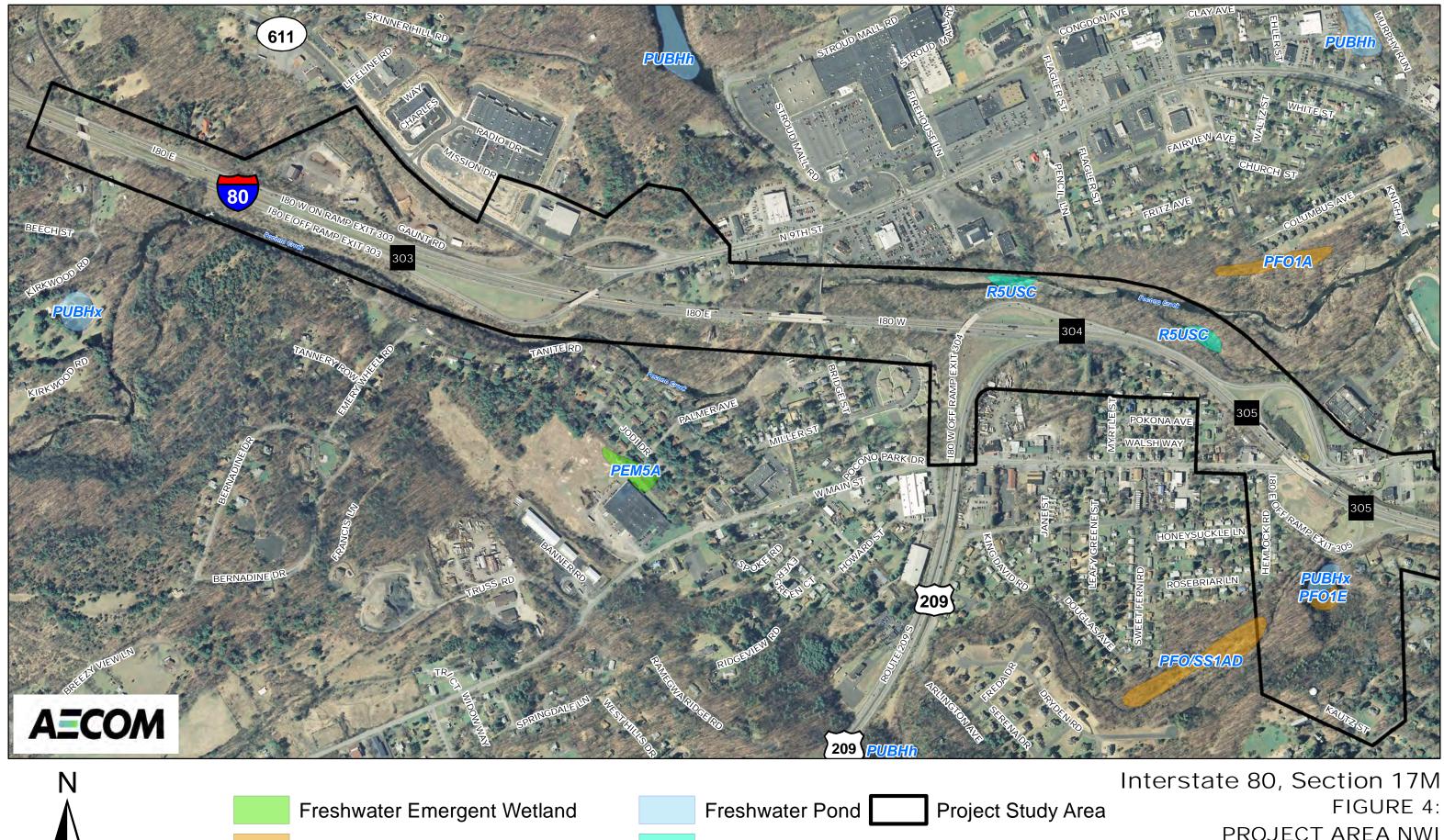


Feet

Source: PAMAP, 2008, USDA NRCS.



Source: PAMAP, 2008, USDA NRCS.



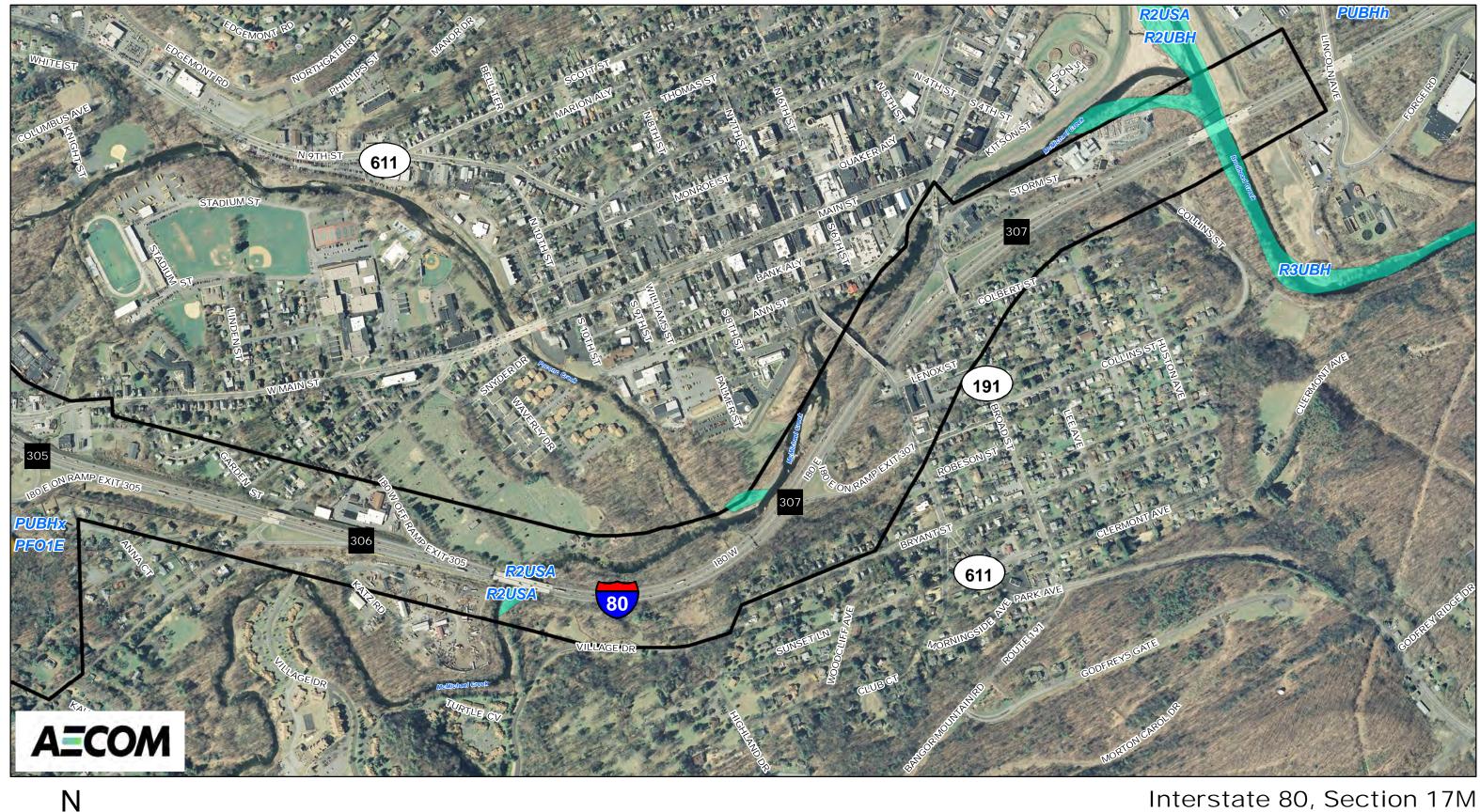
Freshwater Forested/Shrub Wetland

300 600

Feet

Riverine

# PROJECT AREA NWI WETLANDS MAP Sheet 1 of 2 Source: PAMAP, 2008, NWI.



N 0 300 600 Feet

Freshwater Emergent Wetland

Freshwater Pond

Freshwater Forested/Shrub Wetland

Riverine

### Project Study Area Project Study Area FIGURE 4: PROJECT AREA NWI WETLANDS MAP Sheet 2 of 2 Source: PAMAP, 2008, NWI.

### **B.** Watercourses

Field investigations of the project area conducted between August and December, 2013 and May 2014 revealed the presence of 39 watercourses (*Plan Sheets*), all tributaries to Brodhead Creek. *Appendix B* contains color photographs of the watercourses.

**Watercourse WW-1-00 (Brodhead Creek) (***Sheets 19-20***)** – is a perennial tributary to the Delaware River and a Traditional Navigable Water (TNW). Flowing north to south beneath the I-80 bridge crossing just downstream of its confluence with McMichael Creek, Brodhead Creek is the lowest stream in the project area. Within the project area it primarily receives flows from upstream systems and ephemeral tributaries associated with its floodplain. The stream beneath the I-80 bridge has an average width of approximately 100 feet and a rocky cobble substrate.

**Watercourse WW-1-01 (Sheets 19-20)** – is an intermittent tributary (Relatively Permanent Water - RPW) to Brodhead Creek (Watercourse WW-1-00). It flows parallel to I-80's southern edge and appears to primarily receive and carry flows from upslope hydrologic sources. The channel was dry at the time of field investigations. The stream has an average width of approximately eight feet and a silty, gravel substrate.

**Watercourse WW-1-02** (*Sheets 19-20*) – is an intermittent tributary (RPW) to Brodhead Creek (Watercourse WW-1-00). It flows through an elevated floodplain adjacent to Brodhead Creek and appears to primarily receive and carry high flows from McMichael Creek. The channel was dry at the time of field investigations. The stream has an average width of approximately ten feet and a sandy, cobble substrate.

**Watercourse WW-1-03** (*Sheets 19-20*) – is an ephemeral channel (Non-RPW) to Brodhead Creek (Watercourse WW-1-00). It carries flow through an elevated floodplain adjacent to Brodhead Creek and appears to primarily receive and carry high flows from McMichael Creek. The channel was dry at the time of field investigations. The stream has an average width of approximately two feet and a sandy, cobble substrate.

**Watercourse WW-2-00 (McMichael Creek) (***Sheets 15-20***)** – is a perennial tributary and RPW to Brodhead Creek (WW-1-00) a Traditional Navigable Water (TNW). Within the eastern third of the project area, WW-2-00 flows parallel to the northern side of I-80 eventually flowing into Brodhead Creek near the eastern end of the project area. Along much of this length, the existing fill slopes of the highway are the floodplain limits of McMichael Creek. The stream beneath the I-80 bridge has an average width of approximately 55 feet, with downstream widths increasing to 80 feet. The streambed is relatively consistent in substrate composed of gravel and cobble.

Watercourse WW-2-00a (*Sheet 18*) – is an intermittent tributary (RPW) to McMichael Creek (Watercourse WW-2-00). It is a back-channel that connects Wetland W-2-0` with McMichael Creek. The stream has an average width of approximately eight feet.

**Watercourse WW-2-02** (*Sheet 17*) – is a perennial tributary (RPW) to McMichael Creek (Watercourse WW-2-00). It flows through Wetland W-2-02 located in the gore area of Exit 307. The stream has an average width of approximately seven feet and a sandy, cobble substrate.

**Watercourse WW-2-03** (*Sheets 16-17*) – is an ephemeral channel (Non-RPW) to McMichael Creek (Watercourse WW-2-00). This resource captures surface runoff from a steep slope along its southern edge and drains to McMichael Creek through culverts including one discharging to WW-2-02. Portions of the channel were dry at the time of field investigations, other portions had standing water. The stream has an average width of approximately thirty two feet and a sandy, gravel, cobble substrate.

**Watercourse WW-2-04 (Sheet 16)** – is a perennial (RPW) side channel of Pocono Creek (Watercourse WW-3-00). It branches off from the main channel approximately 450 feet upstream of the mouth of Pocono Creek at its confluence with McMichael Creek (WW-2-00). The stream has an average width of approximately twenty feet and a silty and sandy substrate.

**Watercourse WW-2-05** (*Sheet 16*) – is a perennial tributary (RPW) to McMichael Creek (Watercourse WW-2-00). It flows through Wetland W-2-05 located south of I-80 and north of Village Drive. The stream has an average width of approximately two feet and a silt and gravel substrate.

**Watercourse WW-2-06** (*Sheet 16*) – is a perennial tributary (RPW) to McMichael Creek (Watercourse WW-2-00). It flows through Wetland W-2-05 to WW-2-07 located south of I-80 and north of Village Drive. The stream has an average width of approximately two feet and sand, silt and a gravel substrate.

**Watercourse WW-2-07** (*Sheet 16*) – is a perennial tributary (RPW) to McMichael Creek (Watercourse WW-2-00). It flows from Wetland W-2-02 carrying flows received from WW-2-06. The stream has an average width of approximately five feet and a gravel, cobble substrate.

**Watercourse WW-2-08** (*Sheet 16*) – is a perennial tributary (RPW) to McMichael Creek (Watercourse WW-2-00). It flows from Wetland W-2-05 and flows into Wetland W-2-06 before emptying to Watercourse WW-2-11 and then to McMichael Creek. The stream has an average width of approximately two feet and a sand, silt and gravel substrate.

**Watercourse WW-2-09** (*Sheet 16*) – is a perennial tributary (RPW) to McMichael Creek (Watercourse WW-2-00). It flows into Wetland W-2-05 located south of I-80 and north of Village Drive. The stream has an average width of approximately six feet and a silt, gravel substrate.

**Watercourse WW-2-11** (*Sheets 15-16*) – is a perennial tributary (RPW) to McMichael Creek (Watercourse WW-2-00). It flows from Wetland W-2-06 located south of I-80 in a backwater floodplain. The stream has an average width of approximately seven feet and a silty, cobble substrate.

**Watercourse WW-2-12** (*Sheets 15-16*) – is a perennial tributary (RPW) to McMichael Creek (Watercourse WW-2-00). It flows from a 36" corrugated plastic, roadway culvert discharging

from the northern slope of I-80 west of exit 307. The stream has an average width of approximately five feet with a silty, cobble substrate.

**Watercourse WW-2-13** (*Sheet 16-17*) – is an ephemeral tributary (Non-RPW) to McMichael Creek (Watercourse WW-2-00). It flows from Wetland 2-03 located on a northern plateau of I-80 across from exit 307. The channel was dry at the time of field investigations. The stream has an average width of approximately three feet with a silty, cobble substrate.

**Watercourse WW-2-14 (Sheet 16)** – is an ephemeral tributary (Non-RPW) to McMichael Creek (Watercourse WW-2-00). It flows from an 18" roadway culvert discharging from the northern slope of I-80 east of exit 307. The channel was dry at the time of field investigations. The stream has an average width of approximately one foot with a silty, gravel substrate.

**Watercourse WW-3-00 (Pocono Creek) (Sheets 2, 4, 6-10, 16)** – is a perennial tributary (RPW) flowing to McMichael Creek (WW-2-00) a RPW and tributary to a TNW. Within the western quarter of the project area, WW-3-00 flows parallel to the southern side of I-80. Near the I-80 Bridge Street crossing it passes under the interstate and continues along the fillslope of the highway. As Pocono Creek approaches Exit 305 it diverges to the north and then back to the south, near Exit 307, before finally flowing into McMichael Creek. Along much of the length within the project area, the existing fill slopes of the highway are the floodplain limits of Pocono Creek. The stream beneath the I-80 bridge has an average width of approximately 70 feet, with downstream widths increasing to 90 feet. The streambed is relatively consistent in substrate composed of cobble sized rock, boulders and bedrock.

**Watercourse WW-3-01 (Little Pocono Creek) (***Sheets 11-13***)** – is a perennial tributary (RPW) to Pocono Creek (Watercourse WW-3-00). It flows from south to the north passing under I-80 and through the Exit 305 eastbound ramps and gore area. The stream has an average width of approximately 18 feet as it passes under I-80 and a silt, gravel and cobble substrate.

**Watercourse WW-3-02** (*Sheet 12*) – is a perennial tributary (RPW) to Little Pocono Creek (Watercourse WW-3-01). It flows from Wetland W-3-02 located south of the Exit 305 eastbound ramps. The stream has an average width of approximately five feet and a silt, gravel, cobble and boulder substrate.

**Watercourse WW-3-03** (*Sheets 9-11*) – is a perennial tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This channel originates from a flood channel of Pocono Creek and parallels the main channel along the southern bank. This resource is possibly a previous location of the main channel. Initial upstream segments have subsurface flows, but as the channel nears the Exit 305 westbound ramp area surface flow becomes prevalent. The stream has an average width of approximately 25 feet and a sandy, cobble substrate.

**Watercourse WW-3-05** (*Sheet 3*) – is a perennial tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This is a very short segment flowing into the project area from a culvert carrying it beneath a portion of the Stroud Township Yard Waste Compost Facility. This stream has a width of approximately six feet, and silt, gravel and cobble substrate, empties into WW-3-06 then flows to Pocono Creek.

Watercourse WW-3-06 (*Sheet 3*) – is a perennial tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This stream originates from several groundwater seeps and associated streams (WW-3-07 through WW-3-12) and flows through Wetland W-3-09. This channel passes through the project area from west to east then through a culvert originating in the yard waste recycling center and carrying it beneath I-80 before draining to Pocono Creek. This stream has a width of approximately eight feet, and silt, gravel substrate.

**Watercourse WW-3-07** (*Sheets 2-3*) – is a perennial tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This stream originates from a groundwater seep and flows through the project area from west to east to its confluence with Wetland WW-3-06. This stream has a width of approximately four feet, and silt, gravel substrate.

**Watercourse WW-3-09** (*Sheet 3*) – is an intermittent tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This stream flows from an adjacent groundwater seep to WW-3-07. The channel was flowing at the time of field investigations. The stream has an average width of approximately one foot with a silt, gravel, and cobble substrate.

Watercourse WW-3-10 (*Sheet 3*) - is an intermittent tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This stream flows from an adjacent groundwater seep to WW-3-07. The channel was flowing at the time of field investigations. The stream has an average width of approximately one foot with a silt, gravel, and cobble substrate.

Watercourse WW-3-11 (*Sheet 3*) – is an intermittent tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This stream flows from an adjacent groundwater seep to WW-3-07. The channel was dry at the time of field investigations. The stream has an average width of approximately three feet with a silt, gravel, and cobble substrate.

Watercourse WW-3-12 (*Sheet 3*) – is an intermittent tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This stream flows from an adjacent groundwater seep to WW-3-07. The channel was dry at the time of field investigations. The stream has an aver - age width of approximately one foot with a silt, gravel, and cobble substrate.

**Watercourse WW-3-13** (*Sheet 1*) – is an intermittent tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This stream flows northwest to southeast into Pocono Creek south of the project area. The channel was dry at the time of field investigations. The stream has anaverage width of approximately 12 feet as it passes under I-80 with a gravel, cobble and boulder substrate.

**Watercourse WW-3-14 (Sheet 1)** – is an intermittent tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This stream flows northwest to southeast into Pocono Creek south of I-80. The channel was flowing at the time of field investigations. The stream has an average width of approximately six feet with a silty and gravel substrate.

Watercourse WW-3-16 (Sheet 1) – is an intermittent tributary (RPW) to Pocono Creek (Watercourse WW-3-00). This stream flows north to south under I-80 to Pocono Creek south of the project area. The channel was dry at the time of field investigations. The stream has an average width of approximately five feet as it passes under I-80 with a silt, gravel and cobble substrate.

**Watercourse WW-3-17** (*Sheet 1*) – is an ephemeral channel (Non-RPW) to Pocono Creek (Watercourse WW-3-00). It carries precipitation flow adjacent to I-80's northern fill slope to WW-3-16. The channel was dry at the time of field investigations. The stream has an average width of approximately nine feet and a silt and gravel substrate.

**Watercourse WW-3-18** (*Sheet 12*) – is a perennial tributary (RPW) to Little Pocono Creek (Watercourse WW-3-01). This is a stream originating from a culvert at the intersection of Rosebriar Lane and Hemlock Road. The stream flows through the project area from west to east to its confluence with WW-3-1. This stream has a width of approximately twelve feet, and a sand and cobble substrate.

Watercourse	Length	Watercourse		Avg.	Long/Lat
ID WWW 1.00	(linear feet)	Туре	Class.	Width	Long, Lat
WW-1-00 (Brodhead Creek)	627	TNW	perennial	100'	75° 11' 1.063" W/40° 59' 13.825" N
WW-1-01	657	RPW	intermittent	8'	75° 10' 55.137" W/40° 59' 13.466" N
WW-1-02	375	RPW	intermittent	10'	75° 11' 5.646" W/40° 59' 14.870" N
WW-1-03	159	Non-RPW	ephemeral	2'	75° 11' 5.547" W/40° 59' 14.249" N
WW-2-00 (McMichael WW-2-00a	<b>Creek)</b> <sup>4,265</sup> 133	RPW RPW	perennial intermittent	55' 4'	multiple reaches 75° 11' 33.178"W/40° 58' 59.581" N
WW-2-02	85	RPW	perennial	7'	75° 11' 34.438" W/40° 58' 52.401" N
WW-2-03	704	Non-RPW	-	, 32'	75° 11' 36.289" W/40° 58' 48.298" I
WW-2-04	77	RPW	perennial	20'	75° 11' 48.536" W/40° 58' 48.395" I
WW-2-05	243	RPW	perennial	2'	75° 11' 46.274" W/40° 58' 42.582" I
WW-2-06	79	RPW	perennial	2'	75° 11' 50.545" W/40° 58' 42.533" I
WW-2-07	401	RPW	perennial	2 5'	75° 11' 50.965" W/40° 58' 42.179" I
WW-2-08	325	RPW	perennial	2'	75° 11' 52.557" W/40° 58' 41.843" I
WW-2-09	104	RPW	perennial	2 6'	75° 11' 49.774" W/40° 58' 40.483" I
WW-2-09	591	RPW	perennial	7'	75° 12' 0.521" W/40° 58' 43.421" N
WW-2-11	49	Non-RPW	perennial	, 5'	75°11'53.471"W 40°58'44.474"N
WW-2-12	76	Non-RPW	ephemeral	3'	75°11'44.777"W 40°58'47.184"N
WW-2-14	26	Non-RPW	ephemeral	1'	75°11'39.646"W /40°58'50.066"N
WW-3-00	20		ephemerar	1	
(Pocono	6,547	RPW	perennial	70'	multiple reaches
Creek) WW-3-01					
(Little Pocono Creek)	1,330	RPW	perennial	18'	75° 12' 45.259" W/40° 58' 53.750"
Pocono	1,330 115	RPW RPW	perennial perennial	18' 5'	
Pocono Creek)					75° 12' 45.259" W/40° 58' 53.750" 75° 12' 47.713" W/40° 58' 50.750" N 75° 12' 55.141" W/40° 59' 4.679" N
Pocono Creek) WW-3-02 WW-3-03	115 1,105	RPW	perennial intermittent	5'	75° 12' 47.713" W/40° 58' 50.750" N 75° 12' 55.141" W/40° 59' 4.679" N
Pocono Creek) WW-3-02 WW-3-03 WW-3-05	115	RPW RPW	perennial	5' 25'	75° 12' 47.713" W/40° 58' 50.750" N 75° 12' 55.141" W/40° 59' 4.679" N 75° 14' 8.094" W/40° 59' 14.853" N
Pocono Creek)WW-3-02WW-3-03WW-3-05WW-3-06	115 1,105 8	RPW RPW RPW	perennial intermittent perennial perennial	5' 25' 6'	75° 12' 47.713" W/40° 58' 50.750" N
Pocono           Creek)           WW-3-02           WW-3-03           WW-3-05           WW-3-06           WW-3-07	115 1,105 8 564	RPW RPW RPW RPW	perennial intermittent perennial	5' 25' 6' 8'	75° 12' 47.713" W/40° 58' 50.750" N 75° 12' 55.141" W/40° 59' 4.679" N 75° 14' 8.094" W/40° 59' 14.853" N 75° 14' 12.212" W/40° 59' 20.151" N
Pocono           Creek)           WW-3-02           WW-3-03           WW-3-05           WW-3-06           WW-3-07           WW-3-09	115 1,105 8 564 607	RPW RPW RPW RPW RPW	perennial intermittent perennial perennial perennial	5' 25' 6' 8' 4'	75° 12' 47.713" W/40° 58' 50.750" N 75° 12' 55.141" W/40° 59' 4.679" N 75° 14' 8.094" W/40° 59' 14.853" N 75° 14' 12.212" W/40° 59' 20.151" N 75° 14' 17.670" W/40° 59' 20.208" N
Pocono           Creek)           WW-3-02           WW-3-03           WW-3-03           WW-3-05           WW-3-05           WW-3-06           WW-3-07           WW-3-09           WW-3-10	115 1,105 8 564 607 20 33	RPW RPW RPW RPW RPW RPW	perennial intermittent perennial perennial intermittent	5' 25' 6' 8' 4' 1'	75° 12' 47.713" W/40° 58' 50.750" M 75° 12' 55.141" W/40° 59' 4.679" N 75° 14' 8.094" W/40° 59' 14.853" M 75° 14' 12.212" W/40° 59' 20.151" M 75° 14' 17.670" W/40° 59' 20.208" M 75° 14' 17.345" W/40° 59' 21.104" M
Pocono           Creek)           WW-3-02           WW-3-03           WW-3-05           WW-3-06           WW-3-07           WW-3-09           WW-3-10           WW-3-11	115 1,105 8 564 607 20 33 15	RPW RPW RPW RPW RPW RPW RPW RPW	perennial intermittent perennial perennial intermittent intermittent	5' 25' 6' 8' 4' 1' 1'	75° 12' 47.713" W/40° 58' 50.750" N 75° 12' 55.141" W/40° 59' 4.679" N 75° 14' 8.094" W/40° 59' 14.853" N 75° 14' 12.212" W/40° 59' 20.151" N 75° 14' 17.670" W/40° 59' 20.208" N 75° 14' 17.345" W/40° 59' 21.104" N 75° 14' 16.576" W/40° 59' 21.025" N
Pocono Creek) WW-3-02 WW-3-03 WW-3-05 WW-3-06 WW-3-07 WW-3-09 WW-3-10	115 1,105 8 564 607 20 33	RPW RPW RPW RPW RPW RPW RPW	perennial intermittent perennial perennial intermittent intermittent intermittent	5' 25' 6' 8' 4' 1' 1' 3'	75° 12' 47.713" W/40° 58' 50.750" M 75° 12' 55.141" W/40° 59' 4.679" N 75° 14' 8.094" W/40° 59' 14.853" M 75° 14' 12.212" W/40° 59' 20.151" M 75° 14' 17.670" W/40° 59' 20.208" M 75° 14' 17.345" W/40° 59' 21.04" M 75° 14' 16.576" W/40° 59' 21.025" M 75° 14' 15.930" W/40° 59' 21.262" M

Watercourse ID	Length (linear feet)	Watercourse Type	Cowardin Class.	Avg. Width	Long/Lat
WW-3-16	483	RPW	intermittent	5'	75° 14' 37.056" W/40° 59' 22.317" N
WW-3-17	84	Non-RPW	ephemeral	9'	75° 14' 35.850" W/40° 59' 22.708" N
WW-3-18	97	RPW	perennial	12'	75°12'50.907"W 40°58'49.424"N

### C. Ditches

Field investigations of the project area conducted between August and December, 2013 revealed the presence of 6 ditches (*Plan Sheets*), which are identified as conveyances constructed in and draining only uplands, without relatively permanent flow. Ditches are assumed to be regulated by PADEP, but not USACE.

**Ditch 2** (*Sheet 1*) - consists of a swale along the southern toe of slope for I-80, west of White Stone Corner Rd. The channel carries only upland flow from the roadway stormwater system.

**Ditch 4** (*Sheet 1*) - consists of a swale from White Stone Corner Rd draining south toward I-80, west of White Stone Corner Rd. The channel carries only upland flow from the roadway stormwater system.

**Ditch 5** (*Sheet 15*) - consists of a swale along the southern toe of slope for I-80, west of McMichael Creek. The channel carries only upland flow from the roadway stormwater system.

**Ditch 6** (*Sheets 19-20*) - consists of a swale along the northern toe of slope for I-80, west of Brodhead Creek. The channel carries only upland flow from the roadway stormwater system.

(linear feet)*	3
11	75° 14' 41.186" W/40° 59' 22.035" N
376	75° 12' 7.275" W/40° 58' 44.843" N
394	75° 11' 8.674" W/40° 59' 11.374" N
	376

### Table 4: Ditch Summary

### D. Wetlands

The project area wetlands fall within three general categories: groundwater-driven systems, often with seep flow evident; floodplains with additional groundwater contribution; and systems initially constructed as stormwater conveyance which have evolved into enduring wetland systems. Many of the project area wetlands are heavily influenced by the construction of I-80 and the surrounding area. For each wetland identified in the project area, a brief description of the characteristics found is provided in the paragraphs below, along with the basis for jurisdiction. For wetlands contained entirely within the project area, a total size is provided. For wetlands extending beyond the project limits, an estimate of the overall size is given.

Field investigations of the project area conducted between September and December, 2013 and May 2014 revealed the presence of 24 wetland systems (*Plan Sheets*). Several of these include multiple components of an overall hydrologically connected system. *Appendices A & B* contain field data sheets from the investigations and color photographs of the wetlands. *Appendix C* contains the function value evaluation data sheets for the wetlands identified.

Wetland W-1-01 (*Sheets 19-20*) - is located on a bench along the eastern bank of watercourse WW-1-00 (Brodhead Creek) and north of I-80. The wetland boundary is primarily defined by a depression and retention of groundwater. The delineated and overall area of the wetland is 0.04 acre. The Cowardin Classification is palustrine emergent (PEM).

At the time of the investigation the dominant vegetation within the wetland consisted of white panicled American-aster (*Symphyotrichum lanceolatum*, FACW) and purple loosestrife (*Lythrum salicaria*, OBL). Additional species included late goldenrod (*Solidago gigantea*, FACW), and arrowleaf tearthumb (*Persicaria sagittata*, OBL). The soil within the wetland was sampled to a depth of 12 inches before refusal. The soil type present, Cut fill land (Cy), is not listed as a hydric soil in Monroe County. The soil profile did not exhibit hydric characteristics.

Soil Profile	<u>Matrix</u>	Redox	Texture
0-2 inches	10 YR4/3		sand w/organics
2-12 inches	10 YR3/3		sand w/organics

Indicators of wetland hydrology include saturation and geomorphic position. Overflow from Brodhead Creek is assumed to be the primary hydrologic source, with groundwater support. This wetland has principal functions/values of floodflow alteration and sediment/shoreline stabilization.

Wetland W-2-01 (*Sheets 17-18*) - is located within the floodplain of WW-2-00 (McMichael Creek) directly beneath the Seventh Street bridge along the southern bank of the creek. Thiswetland has recently been re-established following the reconstruction of the bridge. The

delineated and overall area of the wetland is 0.55 acre. The Cowardin Classification is palustrine emergent/forested (PEM/FO).

At the time of the investigation the dominant vegetation within the wetland consisted of rice cut grass (*Leersia oryzoides*, OBL), devil's-pitchfork (*Bidens frondosa*, FACW), chufa (*Cyperus esculentus*, FACW), Virginia wild rye (*Elymus virginicus*, FACW), green ash (*Fraxinus pennsylvanica*, FACW), American sycamore (*Platanus occidentalis*, FACW) and river birch (*Betula nigra*, FACW).

The soil within the wetland was sampled to a depth of 18 inches. The soil types present include Holly silt loam (Hy) 0 to 3% and Cut fill land (Cy). Holly silt loam (Hy) is listed as a hydric soil in Monroe County.

Soil Profile	<u>Matrix</u>	Redox	Texture
0-18 inches	5Y 2.5/2		mucky gravel

Indicators of wetland hydrology include surface water, saturation and shallow groundwater. Groundwater and flood contributions appear to be the primary hydrologic contributors. This wetland has a principal function/value of floodflow alteration.

Wetland W-2-02 (*Sheet 17*) - is located within the gore area of Exit 307. This wetland has is significantly affected by upslope drainage and sediment deposition. The delineated and overall area of the wetland is 0.56 acre. The Cowardin Classification is palustrine emergent/ scrub-

shrub (PEM/SS).

At the time of the investigation the dominant vegetation within the wetland consisted of rice cut grass (*Leersia oryzoides*, OBL), swamp smartweed (*Polygonum hydropiperoides*, OBL), true forget-me-not (*Myosotis scorpioides*, OBL), speckled alder (*Alnus incana*, FACW), and red osier dogwood (*Cornus sericea*, FACW).

The soil within the wetland was sampled to a depth of 14 inches. The soil type present, Cut fill land (Cy), is not listed as a hydric soil in Monroe County.

Soil Profile	<u>Matrix</u>	Redox	<u>Texture</u>
0-3 inches	G2 3/5PB		mucky gravel
3-14 inches	G2 5/PB	10YR 5/6	mucky gravel

Indicators of wetland hydrology include saturation, shallow groundwater, hydrogen sulfide odor and oxidized rhizospheres on living roots. Groundwater and surface flow appear to be the primary hydrologic contributors. This wetland has a principal function/value of groundwater recharge/discharge.

**Wetland W-2-03** (*Sheet 16*) - is located within a small slope-side depression along the north fill slope of I-80, just west of Exit 307. The delineated and overall area of the wetland is 0.01 acre. The Cowardin Classification is palustrine emergent/scrub-shrub/forested (PEM/SS/FO).

At the time of the investigation the dominant vegetation within the wetland consisted of purple loosestrife (*Lythrum salicaria*, OBL), Japanese barberry (*Berberis thumbergii*, FACU), Japanese-knotweed (*Fallopia japonica*, FACU), American sycamore (*Platanus occidentalis*, FACW), and black willow (*Salix nigra*, FACW).

The soil within the wetland was sampled to a depth of 18 inches. The soil type present, Cut fill land (Cy), is not listed as a hydric soil in Monroe County.

Soil Profile	<u>Matrix</u>	Redox	Texture
0-10 inches	10YR 2/1		sandy gravel
10-18 inches	10YR 6/1	10YR 4/1	silt

Indicators of wetland hydrology include surface water, saturation, shallow groundwater and oxidized rhizospheres on living roots. Groundwater and surface flooding appear to be the primary hydrologic contributors. This wetland has a principal function/value of groundwater recharge/discharge.

Wetland W-2-04 (*Sheet 16*) - is located within a floodplain terrace of McMichael Creek along the north fill slope of I-80 and west of Exit 307. The delineated and overall area of the wetland is 0.38 acre. The Cowardin Classification is palustrine forested (PFO).

At the time of the investigation the dominant vegetation within the wetland consisted of Japanese stilt-grass (*Microstegium vimineum*, FAC), rice cut grass (*Leersia oryzoides*, OBL), ostrich fern (*Matteuccia struthiopteris*, FACW), clearweed (*Pilea pumila*, FACW), stinging nettle (*Urtica dioica*, FAC), Morrow's honeysuckle (*Lonicera morrowii*, FACU), nanny-berry (*Viburnum lentago*, FAC), green ash (*Fraxinus pennsylvanica*, FACW), red maple (*Acer rubrum*, FAC) and slippery elm (*Ulmus rubra*, FAC).

The soil within the wetland was sampled to a depth of 18 inches. The soil type present, Wyoming gravelly sandy loam (WyC) and Cut fill land (Cy), is not listed as a hydric soil in Monroe County.

Soil Profile	<u>Matrix</u>	Redox	Texture
0-18 inches	10YR 4/1	N2.5	sandy silt
		5YR 3/4	

Indicators of wetland hydrology include surface water, saturation, shallow groundwater, oxidized rhizospheres on living roots, water stained leaves and sparsely vegetated concave surface. Groundwater and surface flooding appear to be the primary hydrologic contributors. This wetland has principal functions/values of floodflow alteration and groundwater recharge/discharge.

Wetland W-2-05 (*Sheet 16*) - is located within a large depression south of the I-80 fill slope and north of Village Drive. The delineated and overall area of the wetland is 2.62 acres. The Cowardin Classification is palustrine forested with emergent/scrub-shrub components (PFO/EM/SS).

At the time of the investigation the dominant vegetation within the wetland consisted of narrowleaf cat-tail (*Typha angustifolia*, OBL), golden-fruit sedge (*Carex aurea*, FACW), European barberry (*Berberis vulgaris*, FACU), wild hydrangea (*Hydrangea arborescens*, FACU), black willow (*Salix nigra*, OBL), paper birch (*Betula papyrifera*, FACU), silver maple (*Acer saccharinum*, FACW) and riverbank grape (*Vitis riparia*, FACW).

The soil within the wetland was sampled to a depth of 8 inches. Of the soil types present, Wyoming gravelly sandy loam (WyC, WyE) is not listed as a hydric soil and Rexford gravely silt loam (ReA), is listed as a hydric soil in Monroe County.

Soil Profile	<u>Matrix</u>	Redox	Texture
0-8 inches	2.5YR 2.5/1	2.5YR 4/8	silty clay

Indicators of wetland hydrology include surface water, saturation, shallow groundwater, and iron deposits. Groundwater and surface flooding appear to be the primary hydrologic contributors. This wetland has a principal function/value of floodflow alteration.

Wetland W-2-04a (*Sheet 16*)- is located within a floodplain terrace of McMichael Creek, below the delineated OHWM. This wetland was added during the field verification visit with USACE in October 2015. It is located along the north fill slope of I-80 and west of Exit 307. The delineated and overall area of the wetland is 0.11 acre.

At the time of the investigation, dominant vegetation within the wetland consisted of Japanese stilt grass (*Microstegium vimineum*, FAC). Soil profile is consistent with and the data point is shared with that of Wetland W-2-04.

Indicators of wetland hydrology include surface water, saturation, shallow groundwater, drainage patterns, water-stained leaves and sparsely vegetated concave surface. This wetland has principal functions/values of floodflow alteration and groundwater recharge/discharge.

**Wetland W-2-06** (*Sheets 15-16*) - is located within a large depression south of the I-80 fill slope and north of Village Drive. The delineated and overall area of the wetland is 0.81 acre. The Cowardin Classification is palustrine emergent/scrub-shrub/forested (PEM/SS/FO).

At the time of the investigation the dominant vegetation within the wetland consisted of narrowleaf cat-tail (*Typha angustifolia*, OBL), Japanese stilt-grass (*Microstegium vimineum*, FAC), European privet (*Ligustrum vulgare*, FACU), river birch (*Betula nigra*, FACW) and riverbank grape (*Vitis riparia*, FACW).

The soil within the wetland was sampled to a depth of 10 inches. Of the soil types present, Cut and fill land (Cy) is not listed as a hydric soil and Rexford gravely silt loam (ReA), is listed as a hydric soil in Monroe County.

Soil Profile	Matrix	Redox	Texture
0-10 inches	2.5YR 3/1	2.5YR 4/8	silty clay
10-16	Water		

Indicators of wetland hydrology include surface water, saturation, shallow groundwater and oxidized rhizospheres on living roots. Groundwater and surface flooding appear to be the primary hydrologic contributors. This wetland has principal functions/values of floodflow alteration and groundwater recharge/discharge.

Wetland W-2-08 (*Sheet 15*) - is within the floodplain next to McMichael Creek (WW-2-00) and abuts WW-2-11 beneath the I-80 bridge crossing. The delineated and overall area of the wetland is 0.02 acre. The Cowardin Classification is palustrine emergent (PEM).

At the time of the investigation the dominant vegetation within the wetland consisted of Japanese-knotweed (*Fallopia japonica*, FACU) and lesser clearweed (*Pilea fontana*, FACW).

The soil within the wetland was sampled to a depth of 16 inches. The soil type present, Cut and fill land (Cy) is not listed as a hydric soil in Monroe County.

Soil Profile	<u>Matrix</u>	Redox	Texture
0-5 inches	10YR 4/2		sandy clay loam
5-12	10YR 3/2	10YR 5/8	sandy clay loam
12-16	10YR 4/1		sandy clay

Indicators of wetland hydrology include shallow groundwater and saturation. Groundwater and surface flooding appear to be the primary hydrologic contributors. This wetland has a principal function/value of floodflow alteration.

Wetland W-3-01 (*Sheet 11*) - is a mowed, maintained grass area located along Little Pocono Creek (WW-3-01). It is located between two businesses (Perkins and a gas station). The delineated and overall area of the wetland is 0.003 acre. The Cowardin Classification is palustrine emergent (PEM).

At the time of the investigation the dominant vegetation within the wetland consisted of grass species.

The soil within the wetland was sampled to a depth of 16 inches. The soil types present, Philo silt loam (Ph) and Cut and fill land (Cy) are not listed as a hydric soils in Monroe County.

Soil Profile	Matrix	Redox	Texture
0-16 inches	2.5 YR 2.5/1	5YR 5/8	silt loam

The only indicator of wetland hydrology was shallow groundwater. Groundwater and periodic surface flooding appear to be the primary hydrologic contributors. This wetland has principal functions/values of floodflow aalteration and groundwater recharge/discharge.

**Wetland W-3-02** (*Sheets 12-13*) – within the project area, is a large open water body with a wet fringe, located south of the Exit 305 eastbound ramps. This wetland does extend beyond the project limits to the south. The delineated area of the wetland is 5.55 acres, of which 0.93 acres is PUB and 4.62 acres is vegetated wetland. The Cowardin Classification is palustrine unconsolidated bottom, emergent, scrub-shrub, forested (PUB/EM/SS/FO) complex.

At the time of the investigation the dominant vegetation within the wetland consisted of pin oak (*Quercus palustris*, FACW), silky dogwood (*Cornus amomum*, FACW), red-osier dogwood (*Cornus sericea*, FACW), skunk cabbage (*Sympocarpus foetidus*, OBL), Japanese stilt-grass (*Microstegium vimineum*, FAC) and a sphagnum species.

The soil within the wetland was sampled to a depth of 10 inches. Of the soil types present, Wyoming gravelly sandy loam (WyE) is not listed as a hydric soil and Sheffield silt loam (Sh) is listed as a hydric soil in Monroe County.

Soil Profile	Matrix	Redox	T <u>exture</u>
0-10 inches	10YR 2/1		silt loam

The indicator of wetland hydrology was surface water. Surface ponding appears to be the primary hydrologic contributor. This wetland has principal functions/values of floodflow alteration, fish/shellfish habitat and wildlife habitat.

**Wetland W-3-04** (*Sheet 7*) – is a toe of slope depression located within the northern floodplain of Pocono Creek (WW-3-00) north of Exit 304. The delineated and overall area of the wetland is 0.006 acre. The Cowardin Classification is palustrine emergent (PEM).

At the time of the investigation the dominant vegetation within the wetland consisted of jewelweed (*Impatiens capensis*, FACW), Japanese stilt-grass (*Microstegium vimineum*, FAC) and yellow birch (*Betula alleghaniensis*, FAC).

The soil within the wetland was sampled to a depth of 13 inches. The soil type present, Cut and fill land (Cy) is not listed as a hydric soil in Monroe County.

Soil Profile	Matrix	Redox	Texture
0-4 inches	<u>10YR 2/1</u>		<u>silty clay</u>
4-10 inches	10YR 2/1	10YR 3/1	silty clay (muck)
10-13 inches	10YR 3/1 & 4/2		sandy silt

Indicators of wetland hydrology included presence of surface water, saturation, water stained leaves and hydrogen sulfide odor. Groundwater appears to be the primary hydrologic contributor. This wetland has a principal function/value of groundwater recharge/discharge.

Wetland W-3-06 (*Sheet* 7) – is a depression located within the northern floodplain of Pocono Creek (WW-3-00) north of I-80 and west of Bridge Street. The delineated and overall area of the wetland is 0.1 acre. The Cowardin Classification is palustrine scrub-shrub/forested (PSS/FO).

At the time of the investigation the dominant vegetation within the wetland consisted of awned flat sedge (Cyperus squarrosus, OBL), New Belgium American-aster (Symphyotrichum novibelgii, FACW), Virginia three-seed-mercury (Acalypha virginica, FACU), Japanese flowering crabapple (Malus floribunda, UPL), spice bush (Lindera benzoin, FACW) and red maple (Acer rubrum, FAC).

The soil within the wetland was sampled to a depth of 13 inches. The soil type present, Pope silt loam (Po) is not listed as a hydric soil in Monroe County.

Soil Profile	Matrix	Redox	Texture
0-4 inches	10YR 3/1	7.5YR 5/6	silt loam
		10YR 5/2	
4-7 inches	10YR 3/1	10YR 4/2	silt loam
7-13 inches	Gley 1 3N		sand & gravel

Indicators of wetland hydrology included presence of shallow groundwater, saturation, an algal mat and water stained leaves. Groundwater appears to be the primary hydrologic contributor. This wetland has a principal function/value of groundwater recharge/discharge.

**Wetland W-3-07** (*Sheet 7*) – is a stream fringe wetland located within the northern floodplain of Pocono Creek (WW-3-00) north of I-80 and west of Bridge Street. The delineated and overall area of the wetland is 0.01 acre. The Cowardin Classification is palustrine emergent (PEM).

At the time of the investigation the dominant vegetation within the wetland consisted of rice cut grass (*Leersia oryzoides*, OBL), Japanese-knotweed (*Fallopia japonica*, FACU), spicebush (*Lindera benzoin*, FACW) and fox grape (*Vitis lambrusca*, FACU).

The soil within the wetland was sampled to a depth of 14 inches. The soil type present, Cut fill land (Cy) is not listed as a hydric soil in Monroe County.

Soil Profile	<u>Matrix</u>	Redox	<u>Texture</u>
0-2 inches	7.5YR 2.5/1		loam
2-8 inches	7.5YR 4/1		sand
8-14 inches	7.5YR 3/1	Gley 13N	sand

Indicators of wetland hydrology included presence of surface water, shallow groundwater, saturation, and oxidized rhizospheres on living roots. Surface water appears to be the primary hydrologic contributor. This wetland has principal functions/values of floodflow alteration and sediment/shoreline stabilization.

**Wetland W-3-09** (*Sheets 2-4*) – is a large depressional wetland located north of I-80 adjacent to the Stroud Township yard waste recycling center. This wetland is associated with several unnamed tributaries to Pocono Creek (WW's 3-05 through 3-12). The delineated and overall area of the wetland is 1.17 acres. The Cowardin Classification is palustrine emergent/scrub-shrub (PEM/SS).

At the time of the investigation the dominant vegetation within the wetland consisted of jewel weed (*Impatiens capensis*, FACW), spicebush (*Lindera benzoin*, FACW), multiflora rose (*Rosa multiflora*, FACU) and red maple (*Acer rubrum*, FAC).

The soil within the wetland was sampled to a depth of 16 inches. The soil types present, Wyoming gravelly sandy loam (WyB, WyC, WyE) are not listed as a hydric soil in Monroe County.

Soil Profile	Matrix	Redox	Texture
0-6 inches	10YR 3/3		sand
6-16 inches	10YR 4/2	10YR 5/3	sand

Indicators of wetland hydrology included presence of saturation and oxidized rhizospheres on living roots. Surface water and groundwater appear to be hydrologic contributors. This wetland has principal functions/values of groundwater recharge/discharge and wildlife habitat.

**Wetland W-3-10** (*Sheet 1*) – is located within a maintained residential area identified as a slope side depression north of I-80 and east of White Stone Corner Rd. The delineated and overall area of the wetland is 0.09 acre. The Cowardin Classification is palustrine forested/emergent (PFO/EM).

At the time of the investigation the dominant vegetation within the wetland consisted of fowl blue grass (*Poa palustris*, FACW), bay forget-me-not (*Myosotis laxa*, OBL), quaker bittercress (*Cardamine pensylvanica*, FACW), Japanese stilt-grass (*Microstegium vimineum*, FAC), fox grape (*Vitis labrusca*, FACU), Morrow's honeysuckle (*Lonicera morrowii*, FACU), Japanese barberry (*Berberis thunbergii*, FACU), sweet-bay magnolia (*Magnolia virginiana*, FACW) and eastern hemlock (*Tsuga canadensis*, FACU).

The soil within the wetland was sampled to a depth of 16 inches. The soil type present, Volusia gravelly silt loam (VoB) is not listed as a hydric soil in Monroe County.

Soil Profile	<u>Matrix</u>	Redox	<u>Texture</u>
0-2 inches	7.5YR 3/1		silt loam
2-7 inches	7.5YR 6/1	7.5YR 4/4	silt loam
		7.5YR 3/1	
7-13 inches	7.5YR 4/1	7.5YR 4/4	silt loam

Indicators of wetland hydrology included presence of surface water, saturation, water stained leaves and oxidized rhizospheres on living roots. Surface water and groundwater appear to be hydrologic contributors. This wetland has a principal function/value of groundwater recharge/discharge.

Wetland W-3-11 (*Sheet 1*) – is a stream fringe wetland associated with streams WW-3-13 and WW-3-16, located south of I-80 and west of White Stone Corner Rd. The delineated and overall area of the wetland is 0.07 acre. The Cowardin Classification is palustrine emergent (PEM).

At the time of the investigation the dominant vegetation within the wetland consisted of tufted hair grass (*Deschampsia caespitosa*, FACW) and jewelweed (*Impatiens capensis*, FACW).

The soil within the wetland was sampled to a depth of 7 inches. The soil types present, Volusia gravelly silt loam (VoB) and Wyoming gravelly sandy loam (WyC) are not listed as a hydric soil in Monroe County.

Soil Profile	Matrix	Redox	Texture
0-4 inches	10YR 3/2	10YR 4/6	silt loam
4-7 inches	7.5YR 3/2	10YR 4/6	silt loam
		10YR 5/1	
7 inches			rock

Indicators of wetland hydrology included presence of shallow groundwater, saturation and water stained leaves. Surface water and groundwater appear to be hydrologic contributors. This wetland has principal functions/values of groundwater recharge/discharge and floodflow alteration.

Wetland W-3-12 (*Sheet 1*) – is a groundwater seep located south of I-80 and west of White Stone Corner Rd. The delineated and overall area of the wetland is 0.04 acre. The Cowardin Classification is palustrine emergent/forested (PEM/FO).

At the time of the investigation the dominant vegetation within the wetland consisted of Japanese stilt-grass (*Microstegium vimineum*, FAC), European privet (*Ligustrum vulgarei*, FACU) and sugar maple (*Acer saccharum*, FACU).

The soil within the wetland was sampled to a depth of 9 inches. The soil types present, Volusia gravelly silt loam (VoB) and Wyoming gravelly sandy loam (WyC) are not listed as a hydric soil in Monroe County.

Soil Profile	<u>Matrix</u>	<u>Redox</u>	<u>Texture</u>
0-1 inch	7.5YR 2.5/1		silt loam
	7.5YR 4/6		
1-3 inches	7.5YR 2.5/1	7.5YR 5/1	silt loam
3-9 inches	7.5YR 5/1	Gley 1 4N	silty clay loam
		7.5YR 2.5/1	
9 inches			rock

Indicators of wetland hydrology included presence of saturation, water stained leaves and hydrogen sulfide odor. Groundwater appears to be the primary hydrologic contributor. This wetland has principal functions/values of groundwater recharge/discharge and floodflow alteration.

Wetland W-3-13 (*Sheet 1*) – is a groundwater seep located south of I-80 and west of White Stone Corner Rd. The delineated and overall area of the wetland is 0.02 acre. The Cowardin Classification is palustrine emergent (PEM).

At the time of the investigation the dominant vegetation within the wetland consisted of rice cutgrass (*Leersia oryzoides*, OBL), New England aster (*Symphyotrichum novae-angliae*, FACW), arrow-leaf tearthumb (*Persicaria sagittata*, OBL), purple-leaf willowherb (*Epilobium coloratum*, OBL) and Japanese barberry (*Berberis thunbergii*, FACU).

The soil within the wetland was sampled to a depth of 8 inches. The soil types present, Volusia gravelly silt loam (VoB), Wyoming gravelly sandy loam (WyC) are not listed as a hydric soil in Monroe County.

Soil Profile	<u>Matrix</u>	Redox	Texture
0-4 inch	10YR 2/1		silt loam, organics
4-8 inches	10YR 4/1		silt loam

Indicators of wetland hydrology included presence of saturation, shallow groundwater and water stained leaves. Groundwater appears to be the primary hydrologic contributor. This wetland has a principal function/value of groundwater recharge/discharge.

Wetland ID	Wetland Size (acres)*	Wetland Type	Longitude	Latitude	Primary Function Value**
W-1-01	0.04	PEM	75° 11' 1.182" W	40° 59' 15.653" N	2, 5
W-2-01	0.55	PEM/FO	75° 11' 33.178" W	40° 58' 59.581" N	2
W-2-02	0.56	PEM/SS	75° 11' 32.308" W	40° 58' 52.499" N	1
W-2-03	0.01	PEM/SS/FO	75° 11' 44.393" W	40° 58' 46.679" N	1
W-2-04	0.38	PFO	75° 11' 48.420" W	40° 58' 45.590" N	1, 2
W-2-05	2.62	PFO/EM/SS	75° 11' 48.888" W	40° 58' 41.932" N	1, 2
W-2-06	0.81	PEM/SS/FO	75° 11' 54.580" W	40° 58' 41.519" N	1, 2
W-2-04a	0.11	PEM	75° 11' 55.497" W	40° 58' 44.947" N	1,2
W-2-08	0.02	PEM	75° 12' 1.496" W	40° 58' 44.512" N	2
W-3-01	0.003	PEM	75° 12' 43.734" W	40° 58' 54.917" N	1, 2
W-3-02	5.55	PUB/EM/SS/FO	75° 12' 47.072" W	40° 58' 49.515" N	2, 3, 4
W-3-04	0.06	PEM	75° 13' 17.954" W	40° 59' 10.773" N	1
W-3-06	0.1	PSS/FO	75° 13' 33.907" W	40° 59' 10.613" N	1
W-3-07	0.01	PEM	75° 13' 33.483" W	40° 59' 8.657" N	2, 5
W-3-09	1.17	PEM/SS	75° 14' 13.935" W	40° 59' 19.222" N	1,4
W-3-10	0.09	PFO/EM	75° 14' 35.915" W	40° 59' 23.714" N	1
W-3-11	0.07	PEM	75° 14' 36.917" W	40° 59' 19.404" N	1, 2
W-3-12	0.04	PEM/FO	75° 14' 38.484" W	40° 59' 20.601" N	1, 2
W-3-13	0.02	PEM	75° 14' 38.062" W	40° 59' 20.840" N	1
*As deline **Function	eated. nal Class Key:				
	- Groundwater Rec		- Wildlife Habitat	4	
	- Floodflow Altera		- Sediment/Shoreline S		
	- Fish/Shellfish Ha		6- Sediment/Toxicant R e Functions and Values as		e overall
system.	as comprised of m	anipie components, on	er uneuons and values as	sessment was made for u	le overall

**Table 5: Wetland Summary** 

### **IV.** List of Preparers

### **AECOM**

Deborah K. Poppel, CWB **Education**:

**Professional Experience:** Responsibility:

Christopher C. Salvatico, GISP: Education:

Professional Experience: Responsibility:

Chris Howsare Education

**Professional Experience** Responsibility

Michael Landis Education

**Professional Experience** Responsibility

Autumn Thomas Education

**Professional Experience** Responsibility

### **McCormick Taylor**

Laren M. Myers Education:

**Professional Experience: Responsibility:** 

Emily E. Choudhry Education

**Professional Experience** Responsibility

Kelly L. Lockman Education

**Professional Experience** Responsibility

Sr. Ecologist M.S. Applied Ecology/Conservation Biology Frostburg State University 18 years JD Field View and Report Editing

Sr. Environmental Planner M.A. Geography Temple University 20 years GIS and Report Preparation

Sr. Environmental Scientist M.A. Environmental Policy University of Pennsylvania 15 years Field Investigations and Report Preparation

Sr. Environmental Scientist **B.S.** Biology Lebanon Valley College 19 years Field Investigations and Report Preparation

**Environmental Scientist** B.S. Environmental Science/Biology, Central Michigan University 13 years **Field Investigations** 

Natural Resource Group Coordinator **B.S. Environmental Resource Management** The Pennsylvania State University 26 years Data Collection

**Environmental Scientist B.S. Biology** Lock Haven University Master of Environmental Studies University of Pennsylvania 6 years Data Collection

**Environmental Scientist B.S.** Landscape Architecture **Rutgers University** 4 years Data Collection

### V. Technical References and Material

- Cowardin, L.M. et al. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Fish and Wildlife Service Northern Prairie Wildlife Research Center, Jamestown, North Dakota. 1979.
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- U.S. Army Corps of Engineers, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2). January, 2012.
- U.S. Army Corps of Engineers, New England District. *The Highway Methodology Workbook Wetland Functions and Values, A Descriptive Approach.* NAEEP-360-1-30a, September 1999.
- U.S. Fish and Wildlife Service, United States Department of Interior. *National Wetland Inventory Mapping* (NWI) for USGS Topographic Quadrangles: Stroudsburg, PA.
- U.S. Geological Survey, United States Department of Interior. 7.5 Minute Topographic Quadrangles: Stroudsburg, PA.

# Appendix A

# **Wetland Delineation Forms**

Project/Site: I-80 Reconstruction	_ City/County: Monroe Sampling Date: Sep 24, 2013
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-1-01 DP1
Investigator(s): Mike Landis, David Jacobs	_Section, Township, Range: <u>Stroud Twp &amp; E Stroudsburg Borough</u>
Landform (hillslope, terrace, etc.) Terrace /depression Lo	ocal relief (concave, convex, none): Concave
Slope (%): 0 Lat: 40° 59' 15.653" N	Long: 75° 11' 1.182" W Datum: NAD 83
Soil Map Unit Name: _ Cut and fill land, 0-25% slopes (Cy)	NWI Classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation x , Soil x , or Hydrology x significantly disturbe	
Are Vegetation, Soil, or Hydrologynaturally problemation	
	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	within a Wetland? Ves X No
Hydric Soil Present?     Yes     No     X	If ves_optional Wetland Site ID: PEM
Wetland Hydrology Present? Yes X No	
Remarks: Floodplain – Sandy soil pocket developed on a flood protection	n rock slope.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea	
X High Water Table (A2) Aquatic Fauna (B1	
X Saturation (A3) Marl Deposits (B15	
Water Marks (B1) Hydrogen Sulfide (	
Sediment Deposits (B2) Oxidized Rhizosph Drift Deposits (B3) Presence of Reduc	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
	tion in Tilled Soils (C6) $\overline{X}$ Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface	
Inundation Visible on Aerial Imagery (B7) Other (Explain in R	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes X No Depth (inches):	0 Wetland Hydrology Present? Yes X No
(includes capillary fringe)	<u> </u>
Departies Reported Data (atream gauge, manitaring well, partial photon, p	revieue inspections) if evoluble:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), il available.
Remarks: Groundwater supported	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Deminent Creation
1				Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				
3				Total Number of Dominant
4				Species Across All Strata: <u>2</u> (B)
5				
6				Percent of Dominant Species
7				That Are OBL, FACW, or FAC: 100 (A/B)
		= Total Co	ver	
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)				Total % Cover of:Multiply by:
1				OBL species <u>30</u> x 1 = <u>30</u>
2				FACW species <u>50</u> X 2 = <u>100</u>
3				FAC species $0   X 3 = 0$
4				FACU species 0 X 4 = 0
5				
6				<u> </u>
7				Column Totals: <u>80</u> (A) <u>130</u> (B)
		= Total Co	ver	
				Prevalence Index = $B/A = 1.63$
Herb Stratum (Plot size: 5 ft )				Hydrophytic Vegetation Indicators:
1. Symphyotrichum lanceolatum	40	Y	FACW	Y Rapid Test for Hydrophytic Vegetation
2. Lythrum salicaria	20	Y	OBL	
3. Solidago gigantea	10	N	FACW	Y Dominance Test is > 50%
4. Persicaria sagittata	10	N	OBL	<u>Y</u> Prevalence Test is $\leq 3.0^{1}$
5				Morphological Adaptations <sup>1</sup> (Provide supporting
6				data in Remarks or on a separate sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				1
9				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
10				be present, unless disturbed or problematic.
11				
12				
	80	= Total Co	ver	
Woody Vine Stratum (Plot size:)				Hydrophytic
Woody Vine Stratum (Plot size:) 1				Vegetation
1				Vegetation
1.       2.       2.				Vegetation
1.       2.       3.	 		  ver	Vegetation
1.       2.       3.			  ver	Vegetation
1.       2.       3.       4.	0		  ver	Vegetation
1.       2.       3.	0		  ver	Vegetation
1.       2.       3.       4.	0		 ver	Vegetation
1.       2.       3.       4.	0		  ver	Vegetation
1.       2.       3.       4.	0		 ver	Vegetation
1.       2.       3.       4.	0		 ver	Vegetation
1.       2.       3.       4.	0		  ver	Vegetation
1.       2.       3.       4.	0		  ver	Vegetation
1.       2.       3.       4.	0		  ver	Vegetation
1.       2.       3.       4.	0		  ver	Vegetation
1.       2.       3.       4.	0		  ver	Vegetation
1.       2.       3.       4.	0		  ver	Vegetation
1.       2.       3.       4.	0		 ver	Vegetation
1.       2.       3.       4.	0		 ver	Vegetation
1.       2.       3.       4.	0		 ver	Vegetation
1.       2.       3.       4.	0		 ver	Vegetation
1.       2.       3.       4.	0		 ver	Vegetation
1.       2.       3.       4.	0		 ver	Vegetation

SOIL	
------	--

	cription: (Describe	to the depth	needed to document the ind		the absence	of indicators.)		
Depth	Matrix		Redox Feature		Tauduma	Dee		
(inches)	Color (moist)	%	Color (moist) %	Type <sup>1</sup> Loc <sup>2</sup>	Texture		narks	
0-2	10YR 4/3	100			SAND	Mixed organic		
2-12	10YR 3/3	100			SAND	Mixed organic		
		·						
<sup>1</sup> Type: C=C	oncentration D=De	pletion RM=F	Reduced Matrix, CS=Covered of	or Coated Sand Gra	ains 2	Location: PL=Pore L	ining M=Matri	ix
1,900. 0-0					unio.		ining, m=maan	
Hydric Soil	Indicators:				Indicat	ors for Problematic	Hydric Soile <sup>3</sup>	-
-	ol (A1)		Polyvalue Below Surface (			Muck (A10) (LRR K	•	
	Epipedon (A2)	-	MLRA 149B)			st Prairie Redox (A16		-
			,					-
	Histic (A3)	-	Thin Dark Surface (S9) (LI			Mucky Peat or Peat		L, К)
	gen Sulfide (A4)	-	Loamy Mucky Mineral (F1)	) (LRR K, L)		Surface (S7) (LRR I	-	
	ed Layers (A5)		Loamy Gleyed Matrix (F2)			value Below Surface		L)
	ed Below Dark Sur		Depleted Matrix (F3)			Dark Surface (S9) (L	-	
Thick	Dark Surface (A12)	_	Redox Dark Surface (F6)		Iron-	Mangenese Masses	(F12) <b>(LRR K</b> ,	L, R)
Sandy	Mucky Mineral (S1	)	Depleted Dark Surface (F7	7)	Pied	mont Floodplain Soils	s (F19) <b>(MLRA</b>	(149B)
Sandy	Gleyed Matrix (S4)	)	Redox Depressions (F8)		Mes	ic Spodic (TA6) <b>(MLR</b>	RA 144A, 145,	149B)
X Sandy	Redox (S5)				Red	Parent Material (TF2	)	
Strippe	ed Matrix (S6)				Very	Shallow Dark Surfac	e (TF12)	
Dark S	Surface (S7) (LRR F	R, MLRA 1498	3)		X Othe	er (Explain in Remark	s)	
<sup>3</sup> Indicators o	f Hydrophytic yogot	ation and wat	and hydrology must be presen	t uplace disturbad	or problems	tic		
indicators o	i Hydiophylic vegel	alion and well	land hydrology must be presen	it, uniess disturbed		liC.		
Postrictivo	Layer (if observed	۸.						
	Rock	).						
Depth (in			_	Hydric Soil Pro	esent?	Yes	No	х
Deptii (ii	12 iciles).		_	-				
Remarks:								
Flo	odplain – Sandy so	il pocket deve	loped on a flood protection roc	k slope.				

Project/Site: 1-80 Reconstruction	City/County: Monroe Sampling Date: Sep 24, 2013			
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-1-01 DP2			
Investigator(s): Mike Landis, David Jacobs Section, Township, Range: Stroud Twp & E Stroudsburg Borough				
Landform (hillslope, terrace, etc.) Terrace Loc	cal relief (concave, convex, none): Concave			
Slope (%): 0 Lat: 40° 59' 15.653" N	Long: 75° 11' 1.182" W Datum: NAD 83			
Soil Map Unit Name:Cut and fill land, 0-25% slopes (Cy)	- NWI Classification:			
Are climatic / hydrologic conditions on the site typical for this time of year?				
Are Vegetation <u>x</u> , Soil <u>x</u> , or Hydrology <u>x</u> significantly disturbed	Are "Normal Circumstances" present? Yes X No			
Are Vegetation, Soil, or Hydrologynaturally problematic?	? (If needed, explain any answers in Remarks.)			
	mpling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes <u>No X</u>	Is the Sampled Area within a Wetland? Yes NoX			
Hydric Soil Present?         Yes NoX	If yes, optional Wetland Site ID: UPL			
Wetland Hydrology Present?         Yes         No         X				
HYDROLOGY				
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)			
Drift Deposits (B3) Presence of Reduce	a)       Moss Trim Lines (B16)         b)       Dry-Season Water Table (C2)         dor (C1)       Crayfish Burrows (C8)         beres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         bered Iron (C4)       Stunted or Stressed Plants (D1)         ion in Tilled Soils (C6)       Geomorphic Position (D2)         (C7)       Shallow Aquitard (D3)			
Field Observations:				
Surface Water Present? Yes <u>No X</u> Depth (inches):				
Water Table Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)	Wetland Hydrology Present? Yes No X			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:			
Remarks: Groundwater supported				

Sampling Point:	W-1-01 DP2
Gamping Font.	W 1-01 D1 Z

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	
1				Number of Dominant Species
2				That Are OBL, FACW, or FAC: 0 (A)
3				
4				Total Number of Dominant Species Across All Strata: 1 (B)
5.				Species Across All Strata: 1 (B)
6				Demonst of Deminent Creation
				Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
1	-	= Total Cov	/or	
		= 10(a) 00		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: )				Total % Cover of: Multiply by:
				OBL species <u>0</u> x 1 = <u>0</u>
2				FACW species 0 X 2 = 0
3				FAC species $0$ X 3 = $0$
4				FACU species 30 X 4 = 120
5				
6				UPL species $0$ $X 5 = 0$
7				Column Totals: <u>30</u> (A) <u>120</u> (B)
		= Total Cov	/er	
	_			Prevalence Index = $B/A = 4.0$
Herb Stratum (Plot size: 5 ft )				
1. Pocea sp	80	Y		Hydrophytic Vegetation Indicators:
2. Coronilla varia	15	N	FACU	Rapid Test for Hydrophytic Vegetation
0 Circling enverse		N	FACU	Dominance Test is > 50%
		·		Prevalence Test is $\leq 3.0^{1}$
				Morphological Adaptations <sup>1</sup> (Provide supporting
5 6.		·		data in Remarks or on a separate sheet)
		·		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7				
8		·		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12				
	100	= Total Cov	/er	
Woody Vine Stratum (Plot size:)				Hydrophytic
1				Vegetation
2.				Present? Yes No X
3.				
4.				
···		Total Ca		
	0	= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate	sheet.)			
1				

Depth         Matrix         Redox Features           (inches)         Color (moist)         %         Color (moist)         %         Type <sup>1</sup> Loc <sup>2</sup> Texture         Rema           0-12         10YR 6/3         100         sand         Sand         Sand         Sand	
	orke
0-12 10YR 6/3 100 Sand	11K5
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lini	ing, M=Matrix.
Hydric Soil Indicators: Indicators for Problematic H	ydric Soils <sup>3</sup> :
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L	_, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (	(LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S	63) <b>(LRR K, L, R)</b>
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K,	L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S	
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LR	
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Mangenese Masses (F	
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (	
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA	
Sandy Redox (S5) Red Parent Material (TF2)	, .,. <b>.</b> ,
Stripped Matrix (S6) Very Shallow Dark Surface	(TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)	
<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	NoX
Remarks:	
Remarks:	

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 25, 2013
Applicant/Owner: PennDOT	State: PA Sampling Point: W-2-01 DP1
Investigator(s): Autumn Thomas, Rich Ozimok	Section, Township, Range:
Landform (hillslope, terrace, etc.) Floodplain	Local relief (concave, convex, none): <u>concave</u>
Slope (%): 1 Lat: 40° 58' 59.581" N	Long: 75° 11' 33.178" W Datum: NAD 83
Soil Map Unit Name:Holly silt loam (Hy) 0 to 3% and Cut fill land (C	y) NWI Classification: none
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes X No (If no, explain in Remarks.)
Are Vegetation <u>X</u> , Soil <u>X</u> , or Hydrology <u>X</u> significantly dist	urbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil _X_, or Hydrologynaturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:
Remarks: Field Wetland Classification: PEM	
Reconstructed wetland, has been replanted/seeded within past year.	Flags 1 to 18
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
X Surface Water (A1) Water-Stained	
X         High Water Table (A2)         Aquatic Fauna           X         Saturation (A3)         Marl Deposits	
Water Marks (B1) Hydrogen Sulfi	de Odor (C1) Crayfish Burrows (C8)
	ospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	educed Iron (C4) Stunted or Stressed Plants (D1) eduction in Tilled Soils (C6) X Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Sur	face (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain	
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inches):	1-4
Water Table Present? Yes X No Depth (inches):	0 @ surface Wetland Hydrology Present? Yes X No
	0@
Saturation Present? Yes X No Depth (inches): (includes capillary fringe)	Sunace
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks:	

Sampling Point: W-2-01 DP1

	Abaaluta	Deminent	Indiantan	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	Absolute % Cover	Dominant Species?	Status	
				Number of Dominant Species
1. Platanus occidentalis	10	<u>Y</u>	FACW	That Are OBL, FACW, or FAC: 8 (A)
2. Fraxinus pennsylvanica	5	Y	FACW	
3				Total Number of Dominant
4				Species Across All Strata: 8 (B)
5.				Species Across Air Strata. <u>6</u> (B)
			·	Percent of Dominant Species
7				That Are OBL, FACW, or FAC: 100 (A/B)
	15	= Total Co	ver	
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 )				Total % Cover of: Multiply by:
1. <u>Betula nigra</u>	5	Y	FACW	OBL species 55 x 1 = 55
2. Platanus occidentalis	5	Y	FACW	
				FAC species $0$ X 3 = $0$
4				FACU species <u>5</u> X 4 = <u>20</u>
5				
6				UPL species <u>0</u> X 5 = <u>0</u>
7.				Column Totals: <u>135</u> (A) <u>225</u> (B)
	10	= Total Co	vor	
	10		VEI	
				Prevalence Index = $B/A = 1.67$
Herb Stratum (Plot size: 5 )				Hydrophytic Vegetation Indicators:
1. Leersia oryzoides	25	<u>Y</u>	OBL	
2. Bidens frondosa	15	Y	FACW	Rapid Test for Hydrophytic Vegetation
3. Cyperus esculentus	15	Y	FACW	X Dominance Test is > 50%
4. Elymus virginicus	15	Y	FACW	X Prevalence Test is $\leq 3.0^1$
5. Eleocharis acicularis	10	N	OBL	Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
6. Polygonum hydropiper	10	N	OBL	
7. Bidens cernua	5	N	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8. Carex comosa	5	N	OBL	
0 Eshinoshlas aruggalli	5	N	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
10 Bolygonum popoylyopioum		 N	FACW	be present, unless disturbed or problematic.
10. Polygonum pensylvanicum			TACW	
11			. <u> </u>	
12				
	110	= Total Co	ver	
Woody Vine Stratum (Plot size:)				Hydrophytic
				Vegetation
2.			·	Present? Yes X No
3	·			
4				
	0	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			

SOIL	Ś	υ	L	L
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	cription: (Describe	to the depth	needed to do			or confirm	the absence	e of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist	Redox Feature	es Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
		/0		) /8	туре		Mucky-	Remarks	
0-18	5Y2.5/2	100	N/A		N/A	N/A	gravel	Fill	
<sup>1</sup> Type: C=C	concentration, D=De	pletion, RM=R	educed Matri	x, CS=Covered	or Coate	d Sand G	rains. 2	Location: PL=Pore Lining, M=Ma	atrix.
Hydric Soil	Indicators:						Indicat	ors for Problematic Hydric Soil	ls <sup>3</sup> :
-	sol (A1)		Polvvalue	Below Surface	(S8) <b>(LR</b>	R R.		Muck (A10) (LRR K, L, MLRA 1	
	Epipedon (A2)		MLRA		(/(	,		st Prairie Redox (A16) (LRR K, L	-
	Histic (A3)			Surface (S9) (L	.RR R, M	LRA 1498		Mucky Peat or Peat (S3) (LRR I	-
	gen Sulfide (A4)			ucky Mineral (F1			-	Surface (S7) (LRR K, L)	, , ,
	ied Layers (A5)	—		eyed Matrix (F2)				value Below Surface (S8) (LRR #	K. L)
	ted Below Dark Surf	ace (A11)	-	Matrix (F3)	,			Dark Surface (S9) (LRR K, L)	
	Dark Surface (A12)			irk Surface (F6)				Mangenese Masses (F12) (LRR	K. L. R)
	Mucky Mineral (S1	)		Dark Surface (F	7)			mont Floodplain Soils (F19) (MLF	-
	Gleyed Matrix (S4)			pressions (F8)	.,			ic Spodic (TA6) (MLRA 144A, 14	
	Redox (S5)	—						Parent Material (TF2)	0, 1102)
	ed Matrix (S6)							Shallow Dark Surface (TF12)	
	Surface (S7) <b>(LRR F</b>	. MLRA 149B	)					er (Explain in Remarks)	
°Indicators of	of Hydrophytic veget	ation and wetla	and hydrology	/ must be presei	nt, unless	s disturbed	d or problema	lic.	
					1				
	Layer (if observed	):							
Туре:			_		امريك	ric Soil P	recent?	Yes X No	
Depth (ii	nches):		_		пуа		resent	Yes X No _	
Remarks:									
Piedmont Fl	oodplain Soils (F19)								
Also, fill from	n recent bridge reco	nstruction and	newly create	d wetland.					

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 25, 2013					
Applicant/Owner: PennDOT	State: PA Sampling Point: W-2-01 DP2					
Investigator(s): Autumn Thomas, Rich Ozimok	Section, Township, Range:					
Landform (hillslope, terrace, etc.) Floodplain Loo	cal relief (concave, convex, none): <u>concave</u>					
Slope (%): 1 Lat: 40° 58' 59.581" N	Long: 75° 11' 33.178" W Datum: NAD 83					
Soil Map Unit Name: Holly silt loam (Hy) 0 to 3% and Cut fill land (Cy)	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 X, Soil X, or Hydrology X significantly disturbed	Are "Normal Circumstances" present? Yes X No					
Are Vegetation, Soil _X_, or Hydrologynaturally problematic	? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS Attach site man showing sa	mpling point locations, transects, important features, etc.					
Sommart of Findings – Attach site map showing sai	inpling point locations, transects, important leatures, etc.					
Hydrophytic Vegetation Present? Yes No X	In the Osmalia d Asse					
Hydric Soil Present? Yes No X	Is the Sampled Area within a Wetland? Yes NoX					
Wetland Hydrology Present? Yes No _X	If yes, optional Wetland Site ID:					
	<u></u>					
Remarks: Field Wetland Classification: UPL						
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)					
Surface Water (A1) Water-Stained Leav	ves (B9) Drainage Patterns (B10)					
High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Marl Deposits (B15)						
Water Marks (B1) Hydrogen Sulfide O	dor (C1) Crayfish Burrows (C8)					
	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3) Presence of Reduct Algal Mat or Crust (B4) Recent Iron Reduct	ed Iron (C4) Stunted or Stressed Plants (D1) ion in Tilled Soils (C6) Geomorphic Position (D2)					
Iron Deposits (B5) Thin Muck Surface	(C7) Shallow Aquitard (D3)					
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re Sparsely Vegetated Concave Surface (B8)	emarks) Microtopographic Relief (D4) FAC-Neutral Test (D5)					
Field Observations:						
Surface Water Present? Yes No Depth (inches):						
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No X					
Saturation Present? Yes No Depth (inches):						
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:					
Remarks:						
Remarks.						

Sampling Point: W-2-01 DP2

	Abaaluta	Deminant	Indiantan	Dominance Test worksheet:	
Trop Stratum (Blat aize: 20	Absolute	Dominant		Denimanoe rest worksheet.	
Tree Stratum (Plot size: <u>30</u> )		Species?		Number of Dominant Species	
1. Acer saccharum	15	Y	FACU	That Are OBL, FACW, or FAC: 1 (A	۵)
2. Platanus occidentalis	5	Y	FACW		<b>-</b> ()
3					
4.				Total Number of Dominant	_ `
				Species Across All Strata: <u>3</u> (B	3)
6				Percent of Dominant Species	
7				That Are OBL, FACW, or FAC: 33 (A/	/B)
	15	= Total Co	ver		
				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: 15 )				Total % Cover of: Multiply by:	
1				OBL species 0 x 1 = 0	
				FACW species <u>5</u> X 2 = <u>10</u>	
				FAC species 0 X 3 = 0	
4	·			FACU species 115 X 4 = 460	
5					
6				UPL species <u>0</u> X 5 = <u>0</u>	
7				Column Totals: <u>120</u> (A) <u>460</u> (	(B)
		= Total Co	ver		
		10101 00			
Herb Stratum (Plot size: 5 )				Prevalence Index = $B/A = 3.83$	
	100	V	FACU	Hydrophytic Vegetation Indicators:	
1. <u>Poa annua</u>	· · · · · · · · · · · · · · · · · · ·	<u> </u>		Rapid Test for Hydrophytic Vegetation	
2				Dominance Test is > 50%	
3	·				
4	<u> </u>			Prevalence Test is $\leq 3.0^1$	
5				Morphological Adaptations <sup>1</sup> (Provide supporti	ing
6.				data in Remarks or on a separate sheet)	
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain	n)
_					,
				<sup>1</sup> Indicators of hydric soil and wetland hydrology m	nust
9	·			be present, unless disturbed or problematic.	
10					
11					
12					
	100	= Total Co	ver		
Woody Vine Stratum (Plot size: 30 )				Hydrophytic	
1. NONE				Vegetation	
2.				Present? Yes <u>No X</u>	_
3.	·				
4.	·				
T					
		= Total Co	ver		
Remarks: (Include photo numbers here or on a separate	sheet.)				

SOIL	
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	ription: (Describe	to the depth	needed to do			confirm	the absence	of indicators.)		
Depth (inches)	Matrix Color (moist)	%	Color (moist	Redox Featur	res Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rer	narks	
				/		200				
N/A		100					FILL	REFUSAL		
<sup>1</sup> Type: C=Co	oncentration, D=De	pletion, RM=R	Reduced Matri	x, CS=Covered	or Coated	Sand G	rains. 2	Location: PL=Pore L	ining, M=Matrix.	
Hydric Soil I	ndicators:						Indicat	ors for Problematic	Hydric Soils <sup>3</sup> :	
Histoso			Polyvalue	Below Surface	(S8) (LRR	R,		Muck (A10) (LRR K	•	3)
	Epipedon (A2)							st Prairie Redox (A16		
Black I	Histic (A3)	_	Thin Dark	Surface (S9) (I	LRR R, ML	.RA 1498	<b>B)</b> 5 cm	Mucky Peat or Peat	(S3) (LRR K, L,	, R)
Hydrog	gen Sulfide (A4)		Loamy Mu	ucky Mineral (F	1) <b>(LRR K</b> ,	L)	Dark	Surface (S7) <b>(LRR I</b>	<, L)	
Stratifie	ed Layers (A5)	_	Loamy Gl	eyed Matrix (F2	2)		Poly	value Below Surface	(S8) (LRR K, L)	)
Deplet	ed Below Dark Surf	ace (A11)	Depleted	Matrix (F3)				Dark Surface (S9) (L		
	Dark Surface (A12)	_		rk Surface (F6)				Mangenese Masses		
	Mucky Mineral (S1)			Dark Surface (F	-7)		Pied	mont Floodplain Soil	s (F19) <b>(MLRA 1</b>	149B)
	Gleyed Matrix (S4)	_	Redox De	pressions (F8)				ic Spodic (TA6) <b>(MLF</b>		49B)
	Redox (S5)							Parent Material (TF2		
	ed Matrix (S6)							Shallow Dark Surfac		
Dark S	urface (S7) (LRR R	, MLRA 149B	8)				Othe	er (Explain in Remark	s)	
<sup>3</sup> Indicators of	Hydrophytic veget	ation and wetle	and hydrology	/ must be prese	ent, unless	disturbed	d or problemat	tic.		
Restrictive I Type: Depth (in	_ayer (if observed)	):	_		Hydr	ic Soil P	resent?	Yes	No	(
Remarks:										

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 24, 2013					
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-2-02 DP1					
Investigator(s): Mike Landis, David Jacobs	Section, Township, Range: Stroud Twp & E Stroudsburg Borough					
Landform (hillslope, terrace, etc.) depression Loc	al relief (concave, convex, none): concave					
Slope (%): 0 Lat: 40° 58' 52.499" N	Long: 75° 11' 32.308" W Datum: NAD 83					
Soil Map Unit Name: Cut and fill land, 0 to 25% slopes (Cy)						
Are climatic / hydrologic conditions on the site typical for this time of year?						
Are Vegetation, Soil, or Hydrologysignificantly disturbed?						
Are Vegetation, Soil, or Hydrologynaturally problematic?						
	npling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes X No	is the Sampled Area					
	Is the Sampled Area within a Wetland? Yes X No					
Hydric Soil Present? Yes X No	If yes, optional Wetland Site ID: PEM					
Wetland Hydrology Present?     Yes     X     No       Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that apply)         Surface Water (A1)       Water-Stained Leave         X       High Water Table (A2)       Aquatic Fauna (B13)         X       Saturation (A3)       Marl Deposits (B15)         Water Marks (B1)       X       Hydrogen Sulfide Oc         Sediment Deposits (B2)       X       Oxidized Rhizospher         Drift Deposits (B3)       Presence of Reduce         Algal Mat or Crust (B4)       Recent Iron Reduction         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Ref         Sparsely Vegetated Concave Surface (B8)       State (B8)	)       Moss Trim Lines (B16)         Dry-Season Water Table (C2)         dor (C1)         res on Living Roots (C3)         of Iron (C4)         on in Tilled Soils (C6)         C7)					
Field Observations:						
Surface Water Present? Yes <u>No X</u> Depth (inches):						
Water Table Present? Yes X No Depth (inches): 10	) Wetland Undreland Process(2) Yes Y No.					
Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe)	Wetland Hydrology Present? Yes X No					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:					
Remarks:						

Sampling Point:	W-2-02 DP1	
Samping Form.	VV-Z-0Z DI I	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	
				Number of Dominant Species
				That Are OBL, FACW, or FAC: 5 (A)
3				Total Number of Dominant
4				Species Across All Strata: 5 (B)
5				
6.				Demonst of Deminerat Creation
7				Percent of Dominant Species
/				That Are OBL, FACW, or FAC: 1000 (A/B)
	0	= Total Co	ver	
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 30 ft )				Total % Cover of: Multiply by:
1. Alnus incana	5	Y	FACW	OBL species 90 x 1 = 90
2. Cornus sericea	5	Y	FACW	
				FACW species <u>20</u> X 2 = <u>40</u>
				FAC species 0 X 3 = 0
4				FACU species _0 X 4 = _0
5				
6				UPL species 0 X 5 = 0
7.		-		Column Totals: <u>110</u> (A) <u>10</u> (B)
	10	= Total Co	ver	
	10	- 10tal 00		
Hart Oterters (Distained of the )				Prevalence Index = $B/A = 1.2$
Herb Stratum (Plot size: 5 ft )				Hydrophytic Vegetation Indicators:
1. Leersia oryzoides	20	Y	OBL	
2. Polygonum hydropiperoides	20	Y	OBL	x Rapid Test for Hydrophytic Vegetation
3. Myosotis scorpioides	40	Y	OBL	x Dominance Test is > 50%
	10	 N	OBL	x Prevalence Test is $\leq 3.0^1$
4. Polygonum sagittatum				Morphological Adaptations <sup>1</sup> (Provide supporting
5. Phalaris arundinacea	10	N	FACW	data in Remarks or on a separate sheet)
6				
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
10				
11				
11 12.				
11			ver	
11	100	= Total Co	ver	
11 12			ver	Hudronhutio
11	100	= Total Co		Hydrophytic
11.           12. <u>Woody Vine Stratum</u> (Plot size:           1.	100	= Total Co		Vegetation
11	100	= Total Co		
11.           12. <u>Woody Vine Stratum</u> (Plot size:           1.	100	= Total Co		Vegetation
11	100	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.		= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.	100	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.		= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation
11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   0	= Total Co		Vegetation

SOIL	
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	cription: (Describe					or confirm	the absence	of indicators.)		
Depth (inches)	Color (moist)	%	Color (moist)	edox Featur %	res Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remar	ks
0-3	G2 3/5PB	100			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Slit		. contai	
3-14	G2 5/PB	95	10YR 5/6	5	C	PL	Slit			
3-14	G2 3/PB	95	101K 5/6				<u> </u>			
Гуре: С=С	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covered	d or Coate	d Sand Gr	ains. <sup>2</sup> l	Location: PL=Po	ore Linii	ng, M=Matrix.
ydric Soil	Indicators:						Indicate	ors for Problem	atic Hy	dric Soils <sup>3</sup> :
Histos			Polyvalue Be	low Surface	e (S8) <b>(LR</b>	R R,	2 cm	Muck (A10) (LF	R K, L	MLRA 149B)
Histic I	Epipedon (A2)		MLRA 149	)В)			Coas	st Prairie Redox	(A16) <b>(I</b>	_RR K, L, R)
Black I	Histic (A3)		Thin Dark Su	rface (S9) <b>(</b>	LRR R, M	LRA 149B		-		3) <b>(LRR K, L, R)</b>
X Hydrog	gen Sulfide (A4)		Loamy Mucky	/ Mineral (F	1) (LRR Þ	(, L)	Dark	Surface (S7) (L	RR K, I	_)
Stratifi	ed Layers (A5)		Loamy Gleye	d Matrix (F2	2)		Polyv	value Below Sur	face (S	B) (LRR K, L)
Deplet	ed Below Dark Sur	face (A11)	X Depleted Mat	rix (F3)				Dark Surface (S		-
Thick I	Dark Surface (A12)		Redox Dark S	Surface (F6	)		Iron-	Mangenese Mas	ses (F1	2) (LRR K, L, R
Sandy	Mucky Mineral (S1	)	Depleted Dar	k Surface (	F7)		Pied	mont Floodplain	Soils (F	19) <b>(MLRA 149</b>
Sandy	Gleyed Matrix (S4)	)	Redox Depre	ssions (F8)			Mesi	c Spodic (TA6) <b>(</b>	MLRA	144A, 145, 149B
Sandy	Redox (S5)						Red	Parent Material	(TF2)	
Strippe	ed Matrix (S6)						Very	Shallow Dark S	urface (	TF12)
Dark S	Surface (S7) (LRR F	R, MLRA 149	9B)				Othe	r (Explain in Rer	narks)	
ndicators of	f Hydrophytic veget	tation and we	etland hydrology mu	ust be prese	ent, unless	s disturbed	or problemat	ic.		
	Layer (if observed	):								
Type:					Hvd	ric Soil Pr	acont?	Yes	х	No
Depth (in	iches):				liya		cocin :	103	<u> </u>	_ 110
Remarks:										

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 26, 2013
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-2-02 DP2
Investigator(s): Mike Landis, David Jacobs	Section, Township, Range: <u>Stroud Twp &amp; E Stroudsburg Borough</u>
Landform (hillslope, terrace, etc.) Terrace Loo	cal relief (concave, convex, none): none
Slope (%):0 Lat:40° 58' 52.499" N	Long: 75° 11' 32.308" W Datum: NAD 83
Soil Map Unit Name: Cut and fill land, 0 to 25% slopes (Cy)	NWI Classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation, Soil, or Hydrology significantly disturbed	Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problematic	
	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No X	In the Sampled Area
	Is the Sampled Area within a Wetland? Yes NoX
Hydric Soil Present? Yes No X	If yes, optional Wetland Site ID: UPL
Wetland Hydrology Present?     Yes     No     X       Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Drift Deposits (B3) Presence of Reduce	B)       Moss Trim Lines (B16)         Dry-Season Water Table (C2)         Crayfish Burrows (C8)         Beres on Living Roots (C3)         Beres on Living Roots (C4)         Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         (C7)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes No X Depth (inches):	Wettend the test and December 200 March 100 March 200
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No _X
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Remarks:	

Sampling Point:	W-2-02 DP2	
Sampling Form.	VV-2-02 DF2	

	Absolute	Dominant Ind	dicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		tatus	
1				Number of Dominant Species
2.				That Are OBL, FACW, or FAC: 1 (A)
3.				
			<u> </u>	Total Number of Dominant
				Species Across All Strata: <u>2</u> (B)
7				Percent of Dominant Species
7				That Are OBL, FACW, or FAC: 50 (A/B)
	0	= Total Cover		
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)				Total % Cover of: Multiply by:
1				OBL species <u>10</u> x 1 = <u>10</u>
2				FACW species 0 X 2 = 0
3				FAC species 50 $X 3 = 150$
4				
5				FACU species X 4 =60
6.				UPL species 0 X 5 = 0
7.				Column Totals: 100 (A) 320 (B)
		= Total Cover		
		- 1010100101		
Herb Stratum (Plot size: 5 ft )				Prevalence Index = $B/A = 3.2$
1. Solidago altissima	30	Y E	ACU	Hydrophytic Vegetation Indicators:
	<u>30</u>		FAC	Rapid Test for Hydrophytic Vegetation
2. <u>Microstegium vimineum</u>				Dominance Test is > 50%
3. Eupatorium rugosum	10		ACU	Prevalence Test is $\leq 3.0^{1}$
4. Boehmeria cylindrica	10	<u>N</u>	OBL	
5		<u> </u>		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
6				
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				
9.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
10				be present, unless disturbed or problematic.
10				be present, unless disturbed or problematic.
10				be present, unless disturbed or problematic.
10 11		= Total Cover		be present, unless disturbed or problematic.
10.       11.       12.				
10.           11.           12.           Woody Vine Stratum           (Plot size:	100	= Total Cover		Hydrophytic
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.	100	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         2.	100	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.	100	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         2.	100	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.	100	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.	 	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	   	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	    0	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	    0	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	    0	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	    0	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	    0	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	    0	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	    0	= Total Cover		Hydrophytic Vegetation
10.         11.         12.         Woody Vine Stratum       (Plot size:)         1.         2.         3.         4.	    0	= Total Cover		Hydrophytic Vegetation

SOIL
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Indexes       Color (moist)       %       Color (moist)       %       Type <sup>1</sup> Loc <sup>2</sup> Texture       Remarks         0-6       10YR 4/3       100       Image: constraint of the second se	Depth	cription: (Describe Matrix	-	F	Redox Featu	res			,	
Dee:       C=C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ric Soil Indicators:	(inches)	Color (moist)	%	Color (moist)			Loc <sup>2</sup>	Texture	Rer	narks
tric Soil Indicators:	0-6	10YR 4/3	100					loam	gravel	
tric Soil Indicators:										
tric Soil Indicators:										
tric Soil Indicators:		·								
tric Soil Indicators:						<u> </u>				
tric Soil Indicators:										
tric Soil Indicators:										
tric Soil Indicators:										
tric Soil Indicators:	vpe: C=C	oncentration, D=De	pletion. RM=	Reduced Matrix	CS=Covered	d or Coate	d Sand Gra	ains. <sup>2</sup> l	ocation: PI =Pore I	ining, M=Matrix,
		<b>,</b> -,	,,	,				-		3,
Histic Epipedon (A2)       MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Mucky Peat or Peat (S3) (LRR K, L, L)         Stratified Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S9) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 14         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Sandy Redox (S5)       Very Shallow Dark Surface (TF12)       Other (Explain in Remarks)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Yes       No       X         Type:       Rock       Minches):       6"       Yes       No       X										-
Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Mucky Peat or Peat (S3) (LRR K, L, Dark Surface (S7) (LRR K, L)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S7) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S6) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 14)         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Type:       Rock       No       X         Depth (inches):       6"       No       X	Histos	ol (A1)				e (S8) <b>(LR</b>	R R,	2 cm	Muck (A10) (LRR K	(, L, MLRA 149B)
Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 145, 14         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:       Rock       No       X         Depth (inches):       6"       Hydric Soil Present?       Yes       No       X	Histic	Epipedon (A2)		MLRA 14	19B)			Coas	st Prairie Redox (A16	6) (LRR K, L, R)
Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 145, 14         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Yes       No       X         Type:       Rock       Rock       No       X	Black I	Histic (A3)		Thin Dark S	urface (S9) <b>(</b>	LRR R, M	LRA 149B)	) 5 cm	Mucky Peat or Peat	(S3) (LRR K, L,
Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 145, 14         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Yes       No       X         Type:       Rock       Rock       No       X	Hydrod	gen Sulfide (A4)		Loamy Muc	ky Mineral (F	1) (LRR #	(, L)	Dark	Surface (S7) (LRR I	K, L)
Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 14         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Sandy Redox (S5)       Red Parent Material (TF2)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Itrictive Layer (if observed):         Type:       Rock         Depth (inches):       6"					-				· · · ·	
Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 1         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Sandy Redox (S5)       Red Parent Material (TF2)       Very Shallow Dark Surface (TF12)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)       Other (Explain in Remarks)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Yes       No       X         Type:       Rock       Rock       No       X         Depth (inches):       6"       No       X			ace (A11)			_,				
Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 1         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Sandy Redox (S5)       Red Parent Material (TF2)       Very Shallow Dark Surface (TF12)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)       Other (Explain in Remarks)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)       Iterative Layer (if observed):         Type:       Rock       No       X         Depth (inches):       6"       No       X				·	. ,	<b>`</b>				
Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 144, 145, 144, 145, 144, 145, 144, 145, 144, 145, 144, 145, 144, 145, 144, 145, 144, 145, 14			<b>`</b>						•	
Sandy Redox (S5)       Red Parent Material (TF2)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         iccators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Other (Explain in Remarks)         trictive Layer (if observed):       No       X         Type:       Rock       No       X         Depth (inches):       6"       No       X		• • •		·		,			•	· / ·
Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Image: Comparison of the present of the pre		• • • •		Redox Depr	essions (F8)					
Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         trictive Layer (if observed):         Type:       Rock         Depth (inches):       6"	_ Sandy	Redox (S5)						Red	Parent Material (TF2	2)
icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	Strippe	ed Matrix (S6)						Very	Shallow Dark Surface	ce (TF12)
trictive Layer (if observed): Type: Rock Depth (inches): 6" No X	Dark S	Surface (S7) (LRR R	, MLRA 149	9B)				Othe	r (Explain in Remark	s)
trictive Layer (if observed): Type: Rock Depth (inches): 6" No X	licators o	f Hydrophytic vegeta	ation and we	etland hydrology n	nust be prese	ent, unless	s disturbed	or problemat	ic.	
Type: Rock Depth (inches): 6" No X	4									
Depth (inches): 6" Hydric Soil Present? Yes No X	Type:		)-							
		iches):	6"			Hyd	ric Soil Pre	esent?	Yes	<u> </u>
narks:	(									
narks:										
	narks:									

Project/Site: I-80 Reconstruction	City/County: Monroe	Sampling Date: Sep 26, 2013
Applicant/Owner: PennDOT	State: PA	Sampling Point: W-2-03 DP1
Investigator(s): A.Thomas, R. Ozimok	Section, Township, Range:	Stroud Twp & E Stroudsburg Borough
Landform (hillslope, terrace, etc.) Hillslope Loc	cal relief (concave, convex, none	): <u>concave</u>
Slope (%): <u>3</u> Lat: <u>40° 58' 46.679" N</u>	Long: <u>75° 11' 44.393" W</u>	Datum: NAD 83
Soil Map Unit Name: Cut and fill land, 0-25% slopes (Cy)	NWI Classifica	ation: <u>None</u>
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, e:	xplain in Remarks.)
Are Vegetation, Soil _X_, or Hydrologysignificantly disturbed	J? Are "Normal Circum	nstances" present? Yes X No
Are Vegetation, Soil, or Hydrologynaturally problematic?	? (If needed, explain	any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	mpling point locations, t	ransects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area	
Hydrophydro Vogetadion reconter     Hos       Hydric Soil Present?     Yes _X No	within a Wetland?	Yes X No
Wetland Hydrology Present?     Yes     X     No	If yes, optional Wetland Site	e ID:
Remarks:		
Within I-80 ROW. Hydrologically connected to McMichael Creek via WW-2 Field Wetland Classification: PEM/SS/FO	2-00. Flags 1 thru 5.	
HYDROLOGY		
Wetland Hydrology Indicators:	Seco	ondary Indicators (minimum of two required)
Drift Deposits (B3)       Presence of Reduce         Algal Mat or Crust (B4)       Recent Iron Reducti         Iron Deposits (B5)       Thin Muck Surface (         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Resence of Reduce)         Sparsely Vegetated Concave Surface (B8)       Presence of Reduce	B) dor (C1) eres on Living Roots (C3) ed Iron (C4) ion in Tilled Soils (C6) (C7) emarks)	Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?       Yes       X       No       Depth (inches):       2         Water Table Present?       Yes       X       No       Depth (inches):       surfa         Water Table Present?       Yes       X       No       Depth (inches):       surfa         Saturation Present?       Yes       X       No       Depth (inches):       surfa         (includes capillary fringe)       Ves       X       No       Depth (inches):       surfa	ace Wetland Hydrology ace	y Present? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:	
Remarks: Hydrologically connected to McMichael Creek		

Sampling Point: W-2-03 DP1

10 10	Dominant Species? Y	Indicator Status	Dominance Test worksheet:
10 10		Olalus	
10	ľ		Number of Dominant Species
		FACW	That Are OBL, FACW, or FAC: 3 (A)
	Y	FACW	
			Total Number of Dominant
			Species Across All Strata: 5 (B)
			Demonst of Deminent Creation
			Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)
20	- Total Ca	(or	That Are OBL, FACW, or FAC: <u>60</u> (A/B)
20		/ei	Duravalan as in day warkah sat
			Prevalence Index worksheet: Total % Cover of: Multiply by:
			OBL species <u>95</u> x 1 = <u>95</u>
5	Y	FACU	FACW species 25 X 2 = 50
			FAC species 0 X 3 = 0
			FACU species <u>10</u> X 4 = <u>40</u>
			UPL species 0 X 5 = 0
			Column Totals: 130 (A) 285 (B)
10	= Total Cov	/er	
			Prevalence Index = B/A =2.19
			Hydrophytic Vegetation Indicators:
70	Y	OBL	
15	N	OBL	Rapid Test for Hydrophytic Vegetation
5	N	OBL	X Dominance Test is > 50%
	-		X Prevalence Test is $\leq 3.0^1$
			Morphological Adaptations <sup>1</sup> (Provide supporting
		UDL	data in Remarks or on a separate sheet)
			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
			1
			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
100	- Total Ca	(or	
100		/ei	
			Hydrophytic
			Vegetation
			Present? Yes X No
0	- Total Cov	/or	
0	- 10101 000		
	10 70 15 5 5 5		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

SOIL
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		to the dep	oth needed to docu			or confirm	the absence	e of indicators.)		
Depth (inches)	Matrix Color (moist)	%	Color (moist)	edox Featur %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remark	s
· · · · · ·				/0	- ype	200			Normark	0
1-10	10YR2/1	100		·			Sandy	gravel		
10-18	10YR6/1	60	10YR4/1	40	D	Μ	Silt			
				·						
				·						
				·						
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RN	I=Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains. 2	Location: PL=P	ore Lining	g, M=Matrix.
Hydric Soil	Indicators:						Indicat	ors for Problem	atic Hvo	tric Soils <sup>3</sup> :
-	ol (A1)		Polyvalue Be	low Surface	(S8) <b>(LR</b>	RR.		n Muck (A10) <b>(LF</b>	-	
	Epipedon (A2)		MLRA 149		() (	,		st Prairie Redox		
	Histic (A3)		Thin Dark Su			II RA 149		Mucky Peat or		
	gen Sulfide (A4)		Loamy Muck					surface (S7) (L		
						<b>、</b> μ)				
	ed Layers (A5)	000 (111)	Loamy Gleye		-)			value Below Sur		
	ed Below Dark Surf	ace (A11)	X Depleted Mat	. ,				Dark Surface (S		
	Dark Surface (A12)		Redox Dark S							2) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dar		-7)					19) <b>(MLRA 149B</b> )
	Gleyed Matrix (S4)		Redox Depre	ssions (F8)				• • •		44A, 145, 149B)
Sandy	Redox (S5)						Red	Parent Material	(TF2)	
Stripp	ed Matrix (S6)						Very	Shallow Dark S	urface (T	F12)
Dark S	Surface (S7) (LRR R	R, MLRA 14	l9B)				Othe	er (Explain in Re	marks)	
<sup>3</sup> Indicators o	f Hydrophytic vegeta	ation and w	vetland hydrology m	ust be prese	ent, unless	s disturbe	d or problema	tic.		
	Layer (if observed)	):								
Туре:					Live	Iria Cail D	recent?	Vaa	v	No
Depth (ir	iches):				пуа	Iric Soil P	resent?	Yes _	X	No
Remarks:										
Remarks.										
I										
1										

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 26, 2013
Applicant/Owner: PennDOT	State: PA Sampling Point: W-2-03 DP2
Investigator(s): Autumn Thomas, Rich Ozimok	
Landform (hillslope, terrace, etc.) Floodplain Loc	cal relief (concave, convex, none): concave
Slope (%): 1 Lat: 40° 58' 46.679" N	Long: 75° 11' 44.393" W Datum: NAD 83
Soil Map Unit Name:Cut and fill land, 0-25% slopes (Cy)	NWI Classification: none
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation, Soil _X_, or Hydrologysignificantly disturbed	? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrologynaturally problematic?	? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No X	
Hydric Soil Present? Yes No X	Is the Sampled Area
Wetland Hydrology Present?     Yes     No     X	within a Wetland? Yes No X
	If yes, optional Wetland Site ID:
Remarks: Field Wetland Classification: UPL	
Remarks: Field Wetland Classification: UPL	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leav	es (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13	
Saturation (A3)Marl Deposits (B15) Water Marks (B1)Hydrogen Sulfide Oc	
Sediment Deposits (B2) Oxidized Rhizosphe	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	
Algal Mat or Crust (B4) Recent Iron Reducti Iron Deposits (B5) Thin Muck Surface (	on in Tilled Soils (C6) Geomorphic Position (D2) (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	marks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No X
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No _X
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	
Nellans.	

Sampling Point: W-2-03 DP2

				Dominance Test worksheet:
	Absolute	Dominant	Indicator	Dominance rest worksheet.
Tree Stratum (Plot size: 30 )		Species?	Status	Number of Dominant Species
1. <u>Platanus occidentalis</u>	5	Y	FACW	That Are OBL, FACW, or FAC: 1 (A)
2				
3				Total Number of Dominant
4				Total Number of Dominant Species Across All Strata: 3 (B)
5.				
6.				Demonstrat Demoiser of Oracian
				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
7	5	= Total Co		That Are OBL, FACW, or FAC: <u>33</u> (A/B)
	5		ivei	Prevalence Index worksheet:
				Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15 )	_			
1. <u>Malus sp.</u>		Y		OBL species <u>0</u> x 1 = <u>0</u>
2				FACW species <u>5</u> X 2 = <u>10</u>
3				FAC species 0 X 3 = 0
4				
5.				FACU species <u>95</u> X 4 = <u>380</u>
6.				UPL species 0 X 5 = 0
7				Column Totals: 100 (A) 390 (B)
/	5	= Total Co		
	<u> </u>	= 101a1 00	wei	
Lierh Otreture (Distaires 5				Prevalence Index = $B/A = 3.90$
Herb Stratum (Plot size: 5 )	c -			Hydrophytic Vegetation Indicators:
1. Solidago altissima	85	Y	FACU	Rapid Test for Hydrophytic Vegetation
2. <u>Monarda didyma</u>	5	N	FACU	
3. Ageratina altissima	5	N	FACU	Dominance Test is > 50%
4.				Prevalence Test is $\leq 3.0^{1}$
5.				Morphological Adaptations <sup>1</sup> (Provide supporting
				data in Remarks or on a separate sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12				
	95	= Total Co	ver	
Woody Vine Stratum (Plot size: 30 )				Hydrophytic
1. NONE				Vegetation
2.				Present? Yes No X
	·			
3				
4				
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	shoot)			
Remarks. (include photo numbers here of on a separate	sneet.)			

SOIL
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	cription: (Describe	to the depth i	needed to do			confirm	the absence	of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	Redox Feature %	s Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Por	narks
		/0		/0	Туре	LUC	Texture		liains
0-12	10YR4/3	100					Silty gravel	FILL	
	refusal @12"								
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=R	educed Matrix	, CS=Covered	or Coated	Sand Gr	ains. <sup>2</sup> l	Location: PL=Pore L	ining, M=Matrix.
Hydric Soil	Indicators:						Indicate	ors for Problematic	Hydric Soils <sup>3</sup> :
-	ol (A1)		Polyvalue	Below Surface (	(S8) <b>(LRR</b>	R,		Muck (A10) (LRR K	•
Histic	Epipedon (A2)		MLRA	149B)			Coas	st Prairie Redox (A16	) (LRR K, L, R)
Black	Histic (A3)		Thin Dark	Surface (S9) <b>(L</b>	RR R, MLF	RA 149E	<b>3)</b> 5 cm	Mucky Peat or Peat	(S3) (LRR K, L, R)
Hydrog	gen Sulfide (A4)		Loamy Mu	cky Mineral (F1	) <b>(LRR K, I</b>	L)	Dark	Surface (S7) (LRR I	<, L)
Stratifi	ed Layers (A5)			eyed Matrix (F2)			Poly	value Below Surface	(S8) <b>(LRR K, L)</b>
	ed Below Dark Surf	ace (A11)	Depleted N	. ,				Dark Surface (S9) (I	
	Dark Surface (A12)	. —		rk Surface (F6)				Mangenese Masses	
	Mucky Mineral (S1)			Dark Surface (F7	7)			mont Floodplain Soil	
	Gleyed Matrix (S4)		Redox Dep	pressions (F8)				ic Spodic (TA6) (MLF	
	Redox (S5) ed Matrix (S6)							Parent Material (TF2 Shallow Dark Surface	
	Surface (S7) <b>(LRR R</b>	MIRA 1498	<b>`</b>					er (Explain in Remark	
									5)
Indicators of	f Hydrophytic vegeta	ation and wetla	and hydrology	must be preser	nt, unless d	isturbed	l or problemat	ic.	
Restrictive	Layer (if observed)	).							
Type:									
Depth (in	ches):		_		Hydric	: Soil Pi	resent?	Yes	<u>No X</u>
	,		_						
Remarks:									
Remarks.									

Project/Site: I-80 Reconstruction City/County: Monroe Sampling Date	e: Sep 26, 2013
Applicant/Owner: PennDOT State: PA Sampling Point: W-2-04/204a	DP1
Investigator(s): A.Thomas, R. Ozimok Section, Township, Range:	Stroud Twp & E Stroudsburg Borough
Landform (hillslope, terrace, etc.) Floodplain terrace Local relief (cond	cave, convex, none): concave
Slope (%): 0 Lat: 40° 58' 45.590" N Long: 75° 11' 48.420" W Datum	NAD 83
Soil Map Unit Name: Cut and fill land (Cy), Wyoming gravelly sand	y loam (WyC) NWI Classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologysignificantly dis	turbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrologynaturally proble	matic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site man showin	g sampling point locations, transects, important features, etc.
	J samping point locations, transects, important leatures, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:
Remarks:	
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Sediment Deposits (B2)         X         Oxidized Rhiz           Drift Deposits (B3)         Presence of F	d Leaves (B9)       X       Drainage Patterns (B10)         a (B13)       Moss Trim Lines (B16)         b (B15)       Dry-Season Water Table (C2)         fide Odor (C1)       Crayfish Burrows (C8)         cospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Reduced Iron (C4)       Stunted or Stressed Plants (D1)         teduction in Tilled Soils (C6)       X         geomorphic Position (D2)       Shallow Aquitard (D3)
Field Observations:	
Surface Water Present? Yes X No Depth (inches):	1

Water Table Present?	Yes X	No	Depth (inches):	2 0 @	Wetland Hydrology Present?	Yes X	No _
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches):				_
Describe Recorded Data (st	ream gauge	, monitorii	ng well, aerial pho	tos, previous ins	spections), if available:		
Remarks:							

Sampling Point: W-2-04 DP1

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	
1. Fraxinus pennsylvanica	20	Y	FACW	Number of Dominant Species
2. Acer rubrum	10	Y	FAC	That Are OBL, FACW, or FAC: 9 (A)
3. Ulmus rubra	10	Y	FAC	
4. Betula alleghaniensis	5	N	FAC	Total Number of Dominant
5. Quercus rubra	5	N	FACU	Species Across All Strata: 10 (B)
6				Demonstrat Demoiser
7.				Percent of Dominant Species That Are OBL, FACW, or FAC: 90 (A/B)
	50	= Total Co	ver	
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 20 )				Total % Cover of: Multiply by:
1. Lonicera morrowii	10	Y	FACU	OBL species 10 x 1 = 10
2. Viburnum lentago	10	Y	FAC	FACW species <u>35</u> X 2 = <u>70</u>
				FAC species _70 X 3 = _210
E				FACU species <u>15</u> X 4 = <u>60</u>
				UPL species 0 X 5 = 0
7				Column Totals: 130 (A) 350 (B)
1	20	= Total Co		
		- 1018100	VEI	
Herb Stratum (Plot size: 5 )				Prevalence Index = $B/A = 2.69$
1. Microstegium vimineum	20	Y	FAC	Hydrophytic Vegetation Indicators:
2. Leersia oryzoides	10	Y	OBL	Rapid Test for Hydrophytic Vegetation
3. Matteuccia struthiopteris	10	<u> </u>	FACW	X Dominance Test is > 50%
4. Pilea pumila	10	<u> </u>	FACW	X Prevalence Test is $\leq 3.0^1$
5. Urtica dioica	10	<u> </u>	FAC	Morphological Adaptations <sup>1</sup> (Provide supporting
	5		FACW	data in Remarks or on a separate sheet)
6. Impatiens capensis	<u> </u>	<u> </u>	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7. <u>Persicaria hydropiper</u>		<u>N</u>	FAC	
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12		<b>T</b> ( ) O		
	70	= Total Co	ver	
Weedy Vine Stratum (Distaire, 20				
Woody Vine Stratum (Plot size: <u>30</u> )				Hydrophytic Vegetation
1. <u>none</u>				Present? Yes X No
2				
3				
4				
	0	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Depth	Matrix			edox Feature	es			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR4/1	85	N2.5	5	С	M	Sandy-silt	
			5YR3/4	10	RM	PL/M	Sandy-silt	
<sup>1</sup> Type: C=Co	oncentration, D=Dep	oletion, RM	I=Reduced Matrix, C	S=Covered	or Coate	ed Sand G	rains. <sup>2</sup>	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicat	tors for Problematic Hydric Soils <sup>3</sup> :
Histos	ol (A1)		Polyvalue Bel	ow Surface	(S8) <b>(LF</b>	RR,	2 cm	n Muck (A10) <b>(LRR K, L, MLRA 149B)</b>
Histic I	Epipedon (A2)		MLRA 149	в)			Coa	st Prairie Redox (A16) (LRR K, L, R)
Black I	Histic (A3)		Thin Dark Su	rface (S9) <b>(L</b>	.RR R, N	ILRA 149	<b>B)</b> 5 cm	n Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrog	gen Sulfide (A4)		Loamy Mucky	Mineral (F1	) <b>(LRR</b>	K, L)	Dark	k Surface (S7) <b>(LRR K, L)</b>
Stratifi	ed Layers (A5)		Loamy Gleye	d Matrix (F2	)		Poly	value Below Surface (S8) (LRR K, L)
Deplet	ed Below Dark Surf	ace (A11)	X Depleted Mat	. ,			Thin	Dark Surface (S9) <b>(LRR K, L)</b>
	Dark Surface (A12)		Redox Dark S	. ,			Iron-	-Mangenese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dar	k Surface (F	7)			mont Floodplain Soils (F19) (MLRA 1498
Sandy	Gleyed Matrix (S4)		Redox Depres	ssions (F8)			Mes	ic Spodic (TA6) <b>(MLRA 144A, 145, 149B)</b>
Sandy	Redox (S5)						Red	Parent Material (TF2)
	ed Matrix (S6)						Very	/ Shallow Dark Surface (TF12)
Dark S	Surface (S7) (LRR R	, MLRA 14	l9B)				Othe	er (Explain in Remarks)
<sup>3</sup> Indicators of	f Hydrophytic vegeta	ation and w	vetland hydrology mu	ust be prese	nt, unles	s disturbed	d or problema	tic.
				-				
	Layer (if observed)	:						
Type:						luia Cail D		
Depth (in	ches):				пус	dric Soil P	resent?	Yes <u>X</u> No
Remarks:								

Sampling Point: W-2-04 DP1

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 23, 2013				
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-2-05 DP1				
Investigator(s): Chris Howsare, Chris Salvatico	Section, Township, Range: Stroud Twp & E Stroudsburg Borough				
Landform (hillslope, terrace, etc.) Depression Loc	al relief (concave, convex, none): <u>Concave</u>				
Slope (%): Lat: 40° 58' 41.932" N	Long: 75° 11' 48.888" W Datum: NAD83				
Soil Map Unit Name: WyE, WyC, ReA - WYOMING GRAV SL, REXFORD C	GRAV StL 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 Hydrologysignificantly disturbed	? Are "Normal Circumstances" present? Yes X No				
Are Vegetation, Soil, or Hydrologynaturally problematic?	(If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area				
Hydric Soil Present? Yes X No	within a Wetland? Yes X No				
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:PFO/EM/SS				
Remarks: Wetland sits inside a bowl and along the toe of slope of I-80.					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)				
X Surface Water (A1) Water-Stained Leave X High Water Table (A2) Aquatic Fauna (B13)					
X Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)				
Water Marks (B1) Hydrogen Sulfide Oc Sediment Deposits (B2) Oxidized Rhizospher	dor (C1) Crayfish Burrows (C8) res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3) Presence of Reduce	d Iron (C4) Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4) Recent Iron Reduction	on in Tilled Soils (C6) Geomorphic Position (D2) C7) Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	marks) Microtopographic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes X No Depth (inches):					
Water Table Present? Yes X No Depth (inches):	8 Notice differences Presental March March March				
Saturation Present? Yes <u>X</u> No <u>Depth</u> (inches):	Wetland Hydrology Present? Yes X No				
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:				
Remarks:					

Sampling Point: W-2-05 DP1

Too Statum       (Pot size:		Abaaluta	Dominant	Indiantar	Dominance Test worksheet:
1       Sake vigra       15       Y       OBL       Number of Dominant Species         2       Betula papyrifera       20       Y       FACU       That Are OBL, FACW, or FAC: 5       (A)         3       Acer sacchariuum       20       Y       FACW       That Are OBL, FACW, or FAC: 5       (A)         4	Trop Stratum (Plot size:	Absolute	Dominant	Indicator	
Partiag paynifera         10         Y         FACU           3. Acer saccharinum         20         Y         FACW           4.         20         Y         FACW           5.               6.                7.                7.                45         = Total Cover           Multiply by:           7.                10         Y         FACU          Multiply by:            2.         Hydrangea arborescens               3.                 4.                 2.         Hydrangea arborescens                3.					Number of Dominant Species
Level appyritera         To         T         Todal					
4.					
4.		20	Y	FACW	Total Number of Dominant
5.	4				
6.	r.				
7.					Dereent of Deminent Checies
45       = Total Cover         Sapling/Shrub Stratum       (Plot size:)         1. Berberis vulgaris       15       Y       FACU         2. Hydrangea arborescens       10       Y       FACU         3.					
Saping/Shub Stratum       (Plot size:)         1. Berberis vulgaris       15       Y       FACU         2. Hydrangea arborescens       10       Y       FACU         3	/·		- Total Co		
Saping/Shrub Stratum       (Plot size:)       15       Y       FACU       Total % Cover of:Multiply by:		45	= 10tal C0	VCI	Drevelence Index werkeheet:
1       Berberis vulgaris       15       Y       FACU         2.       Hydrangea arborescens       10       Y       FACU         3.					
2. Hydrangea arborescens       10       Y       FACU         3.					
3.	U				OBL species <u>65</u> x 1 = <u>65</u>
3.	2. Hydrangea arborescens	10	Y	FACU	FACW species 80 X 2 = 160
4.	3.				
5.	4				
6.	r.				FACU species $50$ X 4 = $200$
7.					UPL species X 5 =
Image: stratum interfact in the stratum interfact					Column Totals: 195 (A) $425$ (B)
Herb Stratum       (Plot size:)         1. Carex aurea       30       Y       FACW         2. Alliaria petiolata       10       FACU         3. Pilea Fontana       20       FACW         4. Persicaria sagittata       20       OBL         5. Typha angustifolia       30       Y         6. Duel Weed       10       FACU         7. Trillium erectum       5       FACU         8.	/				$(R) = \frac{133}{123}$ (R) $\frac{123}{123}$ (D)
Herb Stratum       (Plot size:)         1. Carex aurea       30       Y       FACW         2. Alliaria petiolata       10       FACW         3. Pilea Fontana       20       FACW         4. Persicaria sagittata       20       OBL         5. Typha angustifolia       30       Y         6. Duel Weed       10		25	= Total Co	ver	
Herb Stratum       (Plot size:)         1. Carex aurea       30       Y       FACW         2. Alliaria petiolata       10       FACW         3. Pilea Fontana       20       FACW         4. Persicaria sagittata       20       OBL         5. Typha angustifolia       30       Y         6. Duel Weed       10					Prevalence Index = $B/A = 2.18$
1. Outex attrea	Herb Stratum (Plot size:)				
2. Minima periodata       10       1 ACCO         3. Pilea Fontana       20       FACW         4. Persicaria sagittata       20       OBL         5. Typha angustifolia       30       Y         6. Duel Weed       10	1. Carex aurea	30	Y	FACW	
3. Pilea Fontana       20       FACW       X       Dominance Test is > 50%         4. Persicaria sagittata       20       OBL       OBL       Prevalence Test is ≤ 3.0 <sup>1</sup> 5. Typha angustifolia       30       Y       OBL       Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         6. Duel Weed       10	2. Alliaria petiolata	10		FACU	Rapid Test for Hydrophytic Vegetation
4.       Persicaria sagittata       20       OBL       Prevalence Test is ≤ 3.01         5.       Typha angustifolia       30       Y       OBL       Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)         6.       Duel Weed       10					X Dominance Test is > 50%
Important and the second se	1 Porcicaria cagittata				Prevalence Test is $\leq 3.0^{1}$
6.       Duel Weed       10					
0.       Duel weed       10       FACU       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         1.       5       FACU       Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         10.       11.       125       = Total Cover         Woody Vine Stratum       (Plot size:)       10       Y       FACW         1.       Vitis riparia       10       Y       FACW         2.			<u> </u>	OBL	data in Remarks or on a separate sheet)
8.					
9.	7. Trillium erectum	5		FACU	Problematic Hydrophytic Vegetation' (Explain)
10.	8.				
10.	9.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11.	10				be present, unless disturbed or problematic.
12.	11				
125       = Total Cover         Woody Vine Stratum       (Plot size:)         1.       Vitis riparia         2.          3.          4.          10       Y         FACW       Yegetation         Present?       Yes         X       No         10       = Total Cover	11				
Woody Vine Stratum       (Plot size:)         1.       Vitis riparia         2.          3.          4.          10       Y         FACW       Present?         Yes       X         No          10       = Total Cover	12				
1.       Vitis riparia       10       Y       FACW         2.		125	= Total Co	ver	
1.       Vitis riparia       10       Y       FACW         2.					
2.	Woody Vine Stratum (Plot size:)				Hydrophytic
2.	1. Vitis riparia	10	Y	FACW	
4					Present? Yes X No
4					
10 = Total Cover					
	T				
Remarks: (Include photo numbers here or on a separate sheet.)		10	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate sheet.)					
	Remarks: (Include photo numbers here or on a separate	sheet.)			
		011001.)			

SOIL

Profile Desc Depth	ription: (Describe t Matrix	to the dep	th needed to docur	nent the in dox Featu		or confirm	the absence	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
0-8	2.5YR 2.5/1	90	2.5YR 4/8	10			Silty clay		
8-10	Water		2.0111 1/0						
	Water								
						·			
				<u> </u>		·	<u> </u>		
<sup>1</sup> Type: C=C	oncentration, D=Dep	eletion, RM	=Reduced Matrix, C	S=Covered	d or Coate	d Sand Gra	ains. <sup>2</sup> L	ocation: PL=P	ore Lining, M=Matrix.
Hydric Soil	ndicators:						Indicato	ors for Problem	natic Hydric Soils <sup>3</sup> :
Histos	ol (A1)		Polyvalue Bel	ow Surface	e (S8) <b>(LR</b>	R R,	2 cm	Muck (A10) (LF	RR K, L, MLRA 149B)
Histic I	Epipedon (A2)		MLRA 149	В)			Coast	t Prairie Redox	(A16) <b>(LRR K, L, R)</b>
Black I	Histic (A3)		Thin Dark Sur	face (S9) <b>(</b>	LRR R, M	LRA 149B)	)5 cm	Mucky Peat or	Peat (S3) <b>(LRR K, L, R)</b>
Hydrog	gen Sulfide (A4)		Loamy Mucky	Mineral (F	1) (LRR 🖌	(, L)	Dark Surface (S7) (LRR K, L)		
Stratifi	ed Layers (A5)		Loamy Gleyed	d Matrix (F	2)		Polyvalue Below Surface (S8) (LRR K, L)		
Deplet	ed Below Dark Surfa	ace (A11)	Depleted Matr	ix (F3)			Thin Dark Surface (S9) (LRR K, L)		
Thick I	Dark Surface (A12)		X Redox Dark S	urface (F6	)		Iron-N	/langenese Mas	sses (F12) <b>(LRR K, L, R)</b>
Sandy	Mucky Mineral (S1)		Depleted Dark	s Surface (	F7)		Piedm	nont Floodplain	Soils (F19) (MLRA 149B)
Sandy	Gleyed Matrix (S4)		Redox Depres	sions (F8)			Mesic	Spodic (TA6)	(MLRA 144A, 145, 149B)
Sandy	Redox (S5)						Red F	Parent Material	(TF2)
	ed Matrix (S6)							Shallow Dark S	, ,
Dark S	urface (S7) (LRR R,	MLRA 14	9B)				Other	(Explain in Re	marks)
<sup>3</sup> Indicators of	f Hydrophytic vegeta	ition and w	etland hydrology mu	st be prese	ent, unless	s disturbed	or problemation	с.	
Restrictive	Layer (if observed)								
Type:									Y N
Depth (in	ches):				Hyd	ric Soil Pro	esent?	Yes _	X No
Remarks:									

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 23, 2013				
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-2-05 DP2				
Investigator(s): Chris Howsare, Chris Salvatico					
Landform (hillslope, terrace, etc.) Depression Loc	al relief (concave, convex, none): <u>Concave</u>				
Slope (%): Lat:40° 58' 41.932" N	Long: 75° 11' 48.888" W Datum: NAD83				
Soil Map Unit Name: WyE, WyC, ReA - WYOMING GRAV SL, REXFORD C	GRAV StL 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 Hydrologysignificantly disturbed	? Are "Normal Circumstances" present? Yes X No				
Are Vegetation, Soil, or Hydrologynaturally problematic?	(If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area				
Hydric Soil Present? Yes No X	within a Wetland? Yes NoX				
Wetland Hydrology Present? Yes No X	If yes, optional Wetland Site ID:				
Remarks: Wetland sits inside a bowl and along the toe of slope of I-80.	l				
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)				
Length States (A1) Length States (A1) Length States (A2) Water-Stained Leave High Water Table (A2) Aquatic Fauna (B13)					
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)				
Water Marks (B1) Hydrogen Sulfide Oc Sediment Deposits (B2) Oxidized Rhizospher	dor (C1) Crayfish Burrows (C8) res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3) Presence of Reduce	ed Iron (C4) Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (	on in Tilled Soils (C6) Geomorphic Position (D2) C7) Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	emarks) Microtopographic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes <u>No X</u> Depth (inches):					
Water Table Present? Yes <u>No X</u> Depth (inches):	Wetland Hydrology Present? Yes No X				
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre					
Describe Recorded Data (stream gauge, monitoring weil, aenai photos, pre	vious inspections), il available.				
Remarks:					

Sampling Point: W-2-05 DP2

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status		
1				Number of Dominant Species	
2.				That Are OBL, FACW, or FAC:	(A)
3.					
4.				Total Number of Dominant Species Across All Strata:	<b>(D)</b>
5.					(B)
6.				Percent of Dominant Species	
7.				That Are OBL, FACW, or FAC:	(A/B)
		= Total Cov	/er		(,,,=)
				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size:)				Total % Cover of: Multiply by:	
1				OBL species x 1 =	
2.				FACW species X 2 =	
3.					
4.				FAC species X 3 =	
5.				FACU species X 4 =	
6.				UPL species X 5 =	
7.				Column Totals: (A)	(B)
		= Total Cov	/er		
				Drevelence Index	
Herb Stratum (Plot size:)				Prevalence Index = B/A =	
1				Hydrophytic Vegetation Indicators:	
2.				Rapid Test for Hydrophytic Vegetation	
3.				Dominance Test is > 50%	
4.				Prevalence Test is $\leq 3.0^1$	
5.				Morphological Adaptations <sup>1</sup> (Provide su	oporting
6.				data in Remarks or on a separate sheet	)
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (E	xplain)
8.					. ,
9.				<sup>1</sup> Indicators of hydric soil and wetland hydrolo	
10				be present, unless disturbed or problematic.	
11					
12					
		= Total Cov	/er		
Woody Vine Stratum (Plot size:)				Hydrophytic	
1				Vegetation	
2.				Present? Yes <u>No</u>	X
3.					
4.					
		= Total Cov	/er		
Remarks: (Include photo numbers here or on a separate	sheet )				
Remarks. (meldde photo numbers nore or on a separate	Sheet.)				

SOIL

Depth	Matrix			edox Featu		1 2	Tautura	Da	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		marks
0-6	10YR 3/2	100	None				SILT	Silt Clay	
6-Up	Rock								
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covered	d or Coate	d Sand Gr	ains. 2	Location: PL=Pore	Lining, M=Matrix.
Hydric Soil	Indicators:						Indicat	ors for Problemation	c Hydric Soils <sup>3</sup> :
•	ol (A1)		Polyvalue Bel	low Surface	e (S8) <b>(LR</b>	R R,		n Muck (A10) <b>(LRR I</b>	•
Histic	Epipedon (A2)		MLRA 149					st Prairie Redox (A1	
	Histic (A3)		Thin Dark Su	, rface (S9) <b>(</b>	LRR R, M	LRA 149E			it (S3) (LRR K, L, R)
Hydro	gen Sulfide (A4)		Loamy Mucky	. , .	•			Surface (S7) (LRR	
	ed Layers (A5)		Loamy Gleye					value Below Surface	
	ed Below Dark Sur	face (A11)	Depleted Mat		,			Dark Surface (S9) (	
	Dark Surface (A12)		Redox Dark S		;)				s (F12) <b>(LRR K, L, R</b> )
	Mucky Mineral (S1		Depleted Dar		,			-	ils (F19) <b>(MLRA 149</b>
	Gleyed Matrix (S4)		Redox Depres	```	,			•	RA 144A, 145, 149B
	Redox (S5)	/						Parent Material (TF	
	ed Matrix (S6)							Shallow Dark Surfa	,
	( )								. ,
	Surface (S7) <b>(LRR I</b>							er (Explain in Remar	K5)
<sup>3</sup> Indicators o	f Hydrophytic vege	tation and we	etland hydrology mu	ust be prese	ent, unless	s disturbec	l or problema	tic.	
Restrictive	Layer (if observed	):							
Туре:	Rock								
Depth (ir	nches): 6				Hyd	ric Soil P	resent?	Yes	No <u>X</u>
Remarks:									
Remarks.									

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 24, 2013						
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-2-06 DP1						
Investigator(s): Chris Howsare, Chris Salvatico							
Landform (hillslope, terrace, etc.) Hillslope Loca							
Slope (%): Lat:40° 58' 41.519" N	Long: 75° 11' 54.580" W Datum: NAD83						
Soil Map Unit Name: ReA, Cy - REXFORD GRAVELLY SILT LOAM, CUT A	ND FILL LAND 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 Hydrologysignificantly disturbed?	? Are "Normal Circumstances" present? Yes X No						
Are Vegetation, Soil, or Hydrologynaturally problematic?							
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area						
Hydric Soil Present? Yes X No	within a Wetland? Yes X No						
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: PEM, PSS, PFO						
Remarks: The wetland sits along a tributary of Pocono Creek and along the	e toe of slope of I-80						
HYDROLOGY							
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)						
Wetland Hydrology Indicators:       Secondary Indicators (minimum of two required)         Primary Indicators (minimum of one is required; check all that apply)       Surface Soil Cracks (B6)         X       Surface Water (A1)       Water-Stained Leaves (B9)       X         Y       High Water Table (A2)       Aquatic Fauna (B13)       Most Trable (A2)         X       Saturation (A3)       Marl Deposits (B15)       Drainage Patterns (B10)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Crayfish Burrows (C8)         Sediment Deposits (B2)       X       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       Shallow Aquitard (D3)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Microtopographic Relief (D4)         Sparsely Vegetated Concave Surface (B8)       FAC-Neutral Test (D5)       Microtopographic Relief (D4)							
Field Observations:							
Surface Water Present? Yes X No Depth (inches): 1							
Water Table Present? Yes X No Depth (inches): 12	Wetland Underland Pressnt2 Voc. V No.						
Saturation Present? Yes X No Depth (inches): 8 (includes capillary fringe)	Wetland Hydrology Present? Yes X No						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:						
Remarks: Spring seeps observed. Mock poked 6" to 8".							

Sampling Point: W-2-06 DP1

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status		
1. Betula nigra (River Birch)	20	Y	FACW	Number of Dominant Species	
2. Acer spicatum (Mountain Maple)	3		FACU	That Are OBL, FACW, or FAC: _4	(A)
				Total Number of Dominant	
				Species Across All Strata: 5	(B)
6				Percent of Dominant Species	
7				That Are OBL, FACW, or FAC: 80	(A/B)
	23	= Total Co	ver		
				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size:)				Total % Cover of: Multiply b	
1. Ligustrum vulgare (European Privet)	10	Y	FACU	OBL species x 1 =	
2				FACW species X 2 =	
3				FAC species X 3 =	
4					
5				FACU species X 4 =	
6.				UPL species X 5 =	
7.				Column Totals: (A)	(B)
···	10	= Total Co	vor		
		- 1010100			
Herb Stratum (Plot size:)				Prevalence Index = B/A =	
	40	V	OBL	Hydrophytic Vegetation Indicators:	
1. <u>Typha angustifolia (Narrow-Leaf-Cat-Tail)</u>	40	Y		Rapid Test for Hydrophytic Vegetation	
2. Pilea Fontana (Lesser Clearweed)	5		FACW	x Dominance Test is > 50%	
3. Persicaria hydropiper (Mild Water Pepper)	5		OBL		
4. Microstegium vimineum (Japanese Stilt Grass)	30	Y	FAC	Prevalence Test is $\leq 3.0^1$	
5. Leersia oryzoides (Rice Cut Grass)	15		OBL	Morphological Adaptations <sup>1</sup> (Provide s	
6. Persicaria sagittata (Arrow-Leaf Tearthumb)	15		OBL	data in Remarks or on a separate she	et)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (	Explain)
8.					
9.				<sup>1</sup> Indicators of hydric soil and wetland hydro	
				be present, unless disturbed or problemati	с.
10					
11					
12		Table			
	110	= Total Co	ver		
Woody Vine Stratum (Plot size:)				Hydrophytic	
1. Vitis riparia (River-Bank Grape)	3	Y	FACW	Vegetation Present? Yes X No	
2					
3					
4					
	3	= Total Co	ver		
Remarks: (Include photo numbers here or on a separate	sheet )				
remains. (include photo humbers here of of a separate	Sheet.)				

SOIL

Profile Deso Depth	cription: (Describe Matrix	to the dept		nent the ind dox Feature		r confirm	the absence o	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rer	marks
0-10	2.5YR 3/1	95	2.5YR 4/8	5	С	PL	Silty clay		
10-16	water						<u> </u>		
							·		
	·				<u> </u>				<u> </u>
					<u> </u>				
<sup>1</sup> Type: C=C	oncentration, D=Dep	pletion, RM	Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains. <sup>2</sup> Lo	ocation: PL=Pore L	_ining, M=Matrix.
Hydric Soil	Indicators:						Indicator	s for Problematic	: Hydric Soils <sup>3</sup> :
Histos	ol (A1)		Polyvalue Bel	ow Surface	(S8) <b>(LR</b>	R R,	2 cm N	Muck (A10) (LRR K	K, L, MLRA 149B)
Histic Epipedon (A2)			MLRA 149	B)			Coast	Prairie Redox (A16	6) (LRR K, L, R)
Black Histic (A3)			Thin Dark Sur	face (S9) <b>(L</b>	RR R, M	LRA 1498			t (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)			Loamy Mucky					Surface (S7) (LRR	
Stratified Layers (A5)			Loamy Gleyed				Polyva	alue Below Surface	(S8) (LRR K, L)
			X Depleted Mati					ark Surface (S9) (I	
 Thick	Thick Dark Surface (A12)			urface (F6)					(F12) <b>(LRR K, L, R)</b>
	Sandy Mucky Mineral (S1)			Surface (F	7)			-	s (F19) (MLRA 149B)
	Sandy Gleyed Matrix (S4)			sions (F8)	,				RA 144A, 145, 149B)
	Redox (S5)			· · ·				arent Material (TF2	
Stripped Matrix (S6)					Very Shallow Dark Surface (TF12)				
	Surface (S7) (LRR R	. MLRA 14	9B)					(Explain in Remark	. ,
			-						,
Indicators o	f Hydrophytic vegeta	ation and we	etland hydrology mu	st be preser	nt, unless	s disturbed	d or problematic		
Restrictive	Layer (if observed)	):							
Туре:									,
Depth (ir	nches):				Hydric Soil Present? Yes X N				No
Remarks:									

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 24, 2013
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-2-06 DP2
Investigator(s): Chris Howsare, Chris Salvatico	Section, Township, Range: Stroud Twp & E Stroudsburg Borough
Landform (hillslope, terrace, etc.) Hillslope Lo	cal relief (concave, convex, none): Concave
Slope (%): 0 Lat: 40° 58' 41.519" N	Long: 75° 11' 54.580" W Datum: NAD83
Soil Map Unit Name: ReA, Cy - REXFORD GRAVELLY SILT LOAM, CUT	AND FILL LAND 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 Hydrologysignificantly disturbed	d? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrologynaturally problematic	? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area
Hydric Soil Present? Yes No X	within a Wotland? Voc No Y
Wetland Hydrology Present? Yes No X	If yes, optional Wetland Site ID:
Remarks: The area sits along a tributary of Pocono Creek and along the	toe of slope of I-80
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water-Stained Leav	ves (B9) Surface Soil Cracks (B6) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13	3) Moss Trim Lines (B16)
Arl Deposits (B15 Water Marks (B1) Marl Deposits (B15 Hydrogen Sulfide C	
Sediment Deposits (B2) Oxidized Rhizosphe	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)     Algal Mat or Crust (B4)     Presence of Reduct     Recent Iron Reduct	ed Iron (C4) Stunted or Stressed Plants (D1) ion in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in R	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present?         Yes         No         X         Depth (inches):	Wetland Hydrology Present? Yes No X
Saturation Present? Yes No X Depth (inches):	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Remarks:	

Sampling Point: W-2-06 DP2

2.	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Tree Stratum       (Plot size:)       Subscription       Number of Dominant Induction         1.	·				
1.	Number of Dominant Species         That Are OBL, FACW, or FAC:       2         Total Number of Dominant         Species Across All Strata:       5         B Stratum       (Plot size: 30)         Invulgare       15         Y       FACU         Prevalence Index worksheet:         Total % Cover of:       Multiply by:         OBL species       X1 =         FACU       FACU         Prevalence Index worksheet:       Total % Cover of:         Total % Cover of:       Multiply by:         OBL species       X1 =         FACU species       X3 =         FACU species       X4 =         UPL species       X5 =         Interview       15         Total Cover       Prevalence Index = B/A =         Prevalence Index = B/A =       Prevalence Index soft Hydrophytic Vegetation         Imm vimineum       25       Y         Zo       Y       FACU         Y       FACU         Prevalence Test is < 50%	1.					Dominance Test worksheet:
2.	That Are OBL, FACW, or FAC: $2$ (A)Image: Image: Imag	2.			Species?	Status	Number of Dominant Species
3.	Image: Second	3.					That Are OBL, FACW, or FAC: 2 (A)
4.	Index number of Dominant       5       (B)         Index number of Dominant       Species Across All Strata:       5       (B)         Index number of Dominant Species       That Are OBL, FACW, or FAC:       40       (A/B)         Index number of Dominant Species       That Are OBL, FACW, or FAC:       40       (A/B)         Index number of Dominant Species       That Are OBL, FACW, or FAC:       40       (A/B)         Index number of Dominant Species       That Are OBL, FACW, or FAC:       40       (A/B)         Index number of Dominant Species       That Are OBL, FACW, or FAC:       40       (A/B)         Index number of Dominant Species       That Are OBL, FACW, or FAC:       40       (A/B)         Index number of Dominant Species       X1 =       Image: Species       X2 =       Image: Species       X2 =       Image: Species       X3 =       Image: Species       Image: Species       X4 =       Image: Species       Image: Species       X4 =       Image: Species	4.					
5.	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	5.					
7.	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	7.	_				
Sapling/Shrub Stratum       (Plot size: 30       )       15       Y       FACU         1. Ligustrum vulgare       15       Y       FACU       OBL species       x 1 =         3.	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		6				Percent of Dominant Species
Sapling/Shrub Stratum       (Plot size: 30       15       Y       FACU       Prevalence Index worksheet: Total % Cover of:       Mu         2.	b Stratum (Plot size: 3015YFACU15YFACU0BL species $x 1 =$ 15YFACUFACU species $X 2 =$ FAC species $X 3 =$ 15Total % Cover of:Multiply by:0BL species $x 1 =$ FACW species $X 2 =$ FAC species $X 3 =$ 15Total % Cover of:Multiply by:0BL species $X 2 =$ FAC species $X 3 =$ 15Total % Cover of:Multiply by:15Total % Cover of:Multiply by:15Total % Cover of:Multiply by:15Total % Cover of:Multiply by:1615NFACUFACUVitiolata15NCanadensis20Yjum vimineum25YFACUPrevalence Test is $< 3.0^1$ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)Problematic Hydrophytic VegetationConstructionProblematic Hydrophytic Vegetation	Sapling/Shrub Stratum Signing/Shrub Stratum 1. Ligustrum vulgare(Plot size: 30 15Y Y FACUFACU FACW speciesMultiply by: Multiply by: OBL speciesMultiply by: Multiply by: OBL species2FACU FACW speciesSa = FAC species3FAC speciesX 3 = FAC species4FAC speciesX 4 = Column Totals:6Column Totals:(A)(B)7Column Totals:1.Carex aurea20Y YFACW FACURapid Test for Hydrophytic Vegetation2. Aliaria petiolata3. Solidago Canadensis4	7				That Are OBL, FACW, or FAC: 40 (A/B)
Sapling/Shrub Stratum       (Plot size: 30       )         1.       Ligustrum vulgare       15       Y       FACU         2.	$\frac{b \text{ Stratum}}{n \text{ vulgare}} (\text{Plot size: 30}) \\ 15 Y FACU \\ 0BL species X 1 = \\ OBL species X 2 = \\ FACW species X 3 = \\ FACU species X 4 = \\ UPL species X 5 = \\ UPL species X 5 = \\ Column Totals: (A) (B) \\ 15 = Total Cover \\ \frac{15 N FACU}{15 N FACU} \\ \frac{15 N FACU}{20 Y FACU} \\ \frac{15 N FACU}{25 Y FAC} \\ \frac{16 M drophytic Vegetation Indicators: \\ Rapid Test for Hydrophytic Vegetation \\ Dominance Test is > 50% \\ Prevalence Test is \leq 3.0^{1} \\ Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet) \\ Problematic Hydrophytic Vegetation 1 (Explaip) \\ Problematic Hydrophytic Vegetation 1 (Explain) \\ Problematic Hydrophytic Vegetation 1 (Exp$	Sapling/Shrub Stratum 1. Ligustrum vulgare(Plot size: 30 15YFACU FACUTotal % Cover of: Multiply by: OBL speciesMultiply by: N 1 = COULDED2.15YFACU FACUOBL speciesX 2 = COULDED3			= I otal Co	ver	Dravalance Index workshoet
1.       Ligustrum vulgare       15       Y       FACU       OBL species       x 1 =         2.	invulgare15YFACUOBL speciesx 1 =	1.       Ligustrum vulgare       15       Y       FACU       OBL species       x 1 =	Sapling/Shrub Stratum (Plot size: 30)				
2.	FACW speciesX 2 =SectorX 3 =SectorX 3 =SectorX 3 =SectorX 4 =SectorX 4 =SectorX 5 =SectorY 5 =Sector <td>2.      </td> <td></td> <td>15</td> <td>Y</td> <td>FACU</td> <td>OBL species x 1 =</td>	2.		15	Y	FACU	OBL species x 1 =
3.	FAC speciesX 3 =SectorX 3 =SectorX 4 =Sector <td< td=""><td>3.      </td><td></td><td></td><td></td><td></td><td></td></td<>	3.					
4.	FACU speciesX 4 =Image: Second constraint of the systemImage: Second constraint of the sys	4.					
3.	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	3.					
0.	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	0.					
15       = Total Cover         Herb Stratum       (Plot size: 5)         1. Carex aurea       20       Y       FACW         2. Alliaria petiolata       15       N       FACU         3. Solidago Canadensis       20       Y       FACU         4. Microstegium vimineum       25       Y       FAC         5.	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	15       = Total Cover       Prevalence Index = B/A =         Herb Stratum (Plot size: 5)       20       Y       FACW         1. Carex aurea       20       Y       FACW         2. Alliaria petiolata       15       N       FACU         3. Solidago Canadensis       20       Y       FACU         4. Microstegium vimineum       25       Y       FAC         5					
Herb Stratum       (Plot size: 5 )         1. Carex aurea       20       Y       FACW         2. Alliaria petiolata       15       N       FACU         3. Solidago Canadensis       20       Y       FACU         4. Microstegium vimineum       25       Y       FAC         5.	Prevalence Index = B/A =         Prevalen	Herb Stratum       (Plot size: 5)         1. Carex aurea       20       Y       FACW         2. Alliaria petiolata       15       N       FACU         3. Solidago Canadensis       20       Y       FACU         4. Microstegium vimineum       25       Y       FAC         5.	/	15	- Total Ca		
Herb Stratum       (Plot size: 5         1. Carex aurea       20       Y       FACW         2. Alliaria petiolata       15       N       FACU         3. Solidago Canadensis       20       Y       FACU         4. Microstegium vimineum       25       Y       FAC         5.	Image: head set of the street set	Herb Stratum       (Plot size: 5         1. Carex aurea       20       Y       FACW         2. Alliaria petiolata       15       N       FACU         3. Solidago Canadensis       20       Y       FACU         4. Microstegium vimineum       25       Y       FAC         5		15		vei	
1. Carex aurea       20       Y       FACW         2. Alliaria petiolata       15       N       FACU         3. Solidago Canadensis       20       Y       FACU         4. Microstegium vimineum       25       Y       FAC         5.	rea       20       Y       FACW       Hydrophytic Vegetation Indicators:         titiolata       15       N       FACU       Rapid Test for Hydrophytic Vegetation         Canadensis       20       Y       FACU       Dominance Test is > 50%         jum vimineum       25       Y       FAC       Prevalence Test is ≤ 3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	1. Carex aurea       20       Y       FACW         2. Alliaria petiolata       15       N       FACU         3. Solidago Canadensis       20       Y       FACU         4. Microstegium vimineum       25       Y       FAC         5.	Herb Stratum (Plot size: 5 )				
2. $10$ $17$ $1700$ $1700$ $1700$ 3.       Solidago Canadensis $20$ $Y$ FACU       Prevalence Test is > 50%         4.       Microstegium vimineum $25$ $Y$ FAC       Prevalence Test is $\leq 3.0^1$ 5.       .       .       .       .       .       Morphological Adaptations <sup>1</sup> (Prodata in Remarks or on a separat         6.       .       .       .       .       .       .         7.       .       .       .       .       .       .         9.       .       .       .       .       .       .         10.       .       .       .       .       .       .         12.       .       .       .       .       .       .       .         80       = Total Cover       .       .       .       .       .       .	Canadensis       20       Y       FACU       Dominance Test is > 50%         jum vimineum       25       Y       FAC       Prevalence Test is $\leq 3.0^1$	2. Initial potential       10       IN       INCC         3. Solidago Canadensis       20       Y       FACU       Dominance Test is > 50%         4. Microstegium vimineum       25       Y       FAC       Prevalence Test is > 3.0 <sup>1</sup> 5.	1 Carox auroa	20	Y	FACW	
3. Solidago Canadensis       20       1       1ACO       Prevalence Test is $\leq 3.0^1$ 4. Microstegium vimineum       25       Y       FAC       Morphological Adaptations <sup>1</sup> (Prodata in Remarks or on a separate data in Remarks	Zo       I       I Acco	3. Solidage calladersis       20       1       1400	2. Alliaria petiolata	15	Ν	FACU	
5.	Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	5.	3. Solidago Canadensis			FACU	
6.	data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	6.	<b>U</b>	25	Y	FAC	
0.	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	0.					data in Remarks or on a separate sheet)
8.		8.					. ,
9.		9.					
10.	Indicators of hydric soil and wetland hydrology must	10.					<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11            12		11					be present, unless disturbed or problematic.
12		12	11.				
80 = Total Cover			12				
	80 = Total Cover	80 = Total Cover			= Total Co	ver	
			· · · ·	00	V	540	
Brecont? Vec	<u>Adron radicans 30 Y FAC Vegetation</u> Present? Yes No X	Woody Vine Stratum (Plot size: 15) Hydrophytic Variation		30	<u> </u>	FAC	
		1. Toxicodendron radicans         30         Y         FAC         Vegetation					
4.		1. Toxicodendron radicans     30     Y     FAC     Vegetation       2.					
30 = Total Cover		1. Toxicodendron radicans         30         Y         FAC         Vegetation           2.		30	= Total Co	ver	
		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Brecent? Vee				30	<u> </u>	FAC	
		1. Toxicodendron radicans         30         Y         FAC         Vegetation					
		1. Toxicodendron radicans     30     Y     FAC     Vegetation       2.					
30 = Total Cover		1. Toxicodendron radicans         30         Y         FAC         Vegetation           2.	<u> </u>	30	= Total Co	ver	
		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.				VEI	
		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.	Remarks: (Include photo numbers here or on a separate	sheet )			
Permerke: (Include photo numbers here or on a concrete sheet)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.	Remarks. (include photo numbers here of on a separate	sneet.)			
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.		· · <b>,</b>			
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					
Remarks: (Include photo numbers here or on a separate sheet.)		1. Toxicodendron radicans       30       Y       FAC       Vegetation         2.					

SOIL

Profile Deso Depth	cription: (Describe Matrix		th needed to docur	<b>ment the in</b> edox Featur		or confirm	the absence o	of indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rer	marks	
0-8	10YR 4/2	100	None							
8-Up	Rock									
<u> </u>	HOOK									
					·					
<sup>1</sup> Type: C=C	oncentration, D=De	epletion, RM=		S=Coverec	or Coate	d Sand Gr	ains. <sup>2</sup> Lo	ocation: PL=Pore L	_ining, M=Matrix.	
Hydric Soil	Indicators:						Indicato	s for Problematic	: Hvdric Soils <sup>3</sup> :	
•	ol (A1)		Polyvalue Bel	low Surface	e (S8) <b>(LR</b>	R R.		Muck (A10) (LRR K	•	
	Epipedon (A2)			MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)						
	Histic (A3)		Thin Dark Sur		LRR R, M	LRA 149B			t (S3) (LRR K, L, R)	
	gen Sulfide (A4)		Loamy Mucky					Surface (S7) (LRR		
	ied Layers (A5)		Loamy Gleyed	d Matrix (F2	2)			alue Below Surface		
Deplet	ted Below Dark Sur	rface (A11)	X Depleted Mat	rix (F3)			Thin D	ark Surface (S9) (I	LRR K, L)	
Thick	Dark Surface (A12)	)	Redox Dark S	Surface (F6)	)		Iron-M	angenese Masses	(F12) (LRR K, L, R)	
Sandy	Mucky Mineral (S1	1)	Depleted Darl	k Surface (I	F7)		Piedm	ont Floodplain Soil	s (F19) <b>(MLRA 149E</b>	
Sandy	Gleyed Matrix (S4	-)	Redox Depres	ssions (F8)			Mesic	Spodic (TA6) (MLI	RA 144A, 145, 149B	
Sandy	r Redox (S5)						Red P	arent Material (TF2	2)	
Strippe	ed Matrix (S6)						Very S	Shallow Dark Surface	ce (TF12)	
Dark S	Surface (S7) <b>(LRR</b> I	R, MLRA 149	ЭВ)				Other	(Explain in Remark	(S)	
<sup>3</sup> Indicators o	f Hydrophytic vege	tation and we	etland hydrology mu	ust be prese	ent, unless	s disturbed	or problematic			
	Layer (if observed	d):								
	Rock				Hvd	ric Soil Pr	asant?	Yes	No X	
Depth (ir	iches):	8			nya		esent:	163		
Remarks:										
Remarks.										

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: October 2, 2013							
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-2-08 DP1							
Investigator(s): Chris Howsare, Chris Salvatico	Section, Township, Range: Stroud Twp & E Stroudsburg Borough							
Landform (hillslope, terrace, etc.) Floodplain Loo	cal relief (concave, convex, none): <u>None</u>							
Slope (%):0 Lat:40° 58' 44.512" N	Long: 75° 12' 1.496" W Datum: NAD83							
Soil Map Unit Name: Cy - CUT AND FILL LAND	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 X, Soil , or Hydrology X significantly disturbed	? Are "Normal Circumstances" present? Yes X No							
Are Vegetation, Soil, or Hydrologynaturally problematic?	? (If needed, explain any answers in Remarks.)							
SUMMARY OF FINDINGS – Attach site map showing same	npling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area							
Hydrophytic Vegetation (resent)     Here       Hydric Soil Present?     Yes _XNo	within a Wetland? Ves X No							
	If yes, optional Wetland Site ID: PEM							
Wetland Hydrology Present? Yes X No								
Remarks: The wetland sits along a tributary (WW-2-11) to McMichael Creek under I-80.								
HYDROLOGY								
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)							
Primary Indicators (minimum of one is required; check all that apply)         Surface Water (A1)       Water-Stained Leav         X       High Water Table (A2)       Aquatic Fauna (B13)         X       Saturation (A3)       Marl Deposits (B15)         Water Marks (B1)       Hydrogen Sulfide Ou         Sediment Deposits (B2)       Oxidized Rhizosphe         Drift Deposits (B3)       Presence of Reduce         Algal Mat or Crust (B4)       Recent Iron Reducti         Iron Deposits (B5)       Thin Muck Surface (Dittor (Explain in Reference)         Sparsely Vegetated Concave Surface (B8)       Other (Explain in Reference)	B)       Moss Trim Lines (B16)         Dry-Season Water Table (C2)         dor (C1)       Crayfish Burrows (C8)         eres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         ed Iron (C4)       Stunted or Stressed Plants (D1)         ion in Tilled Soils (C6)       Geomorphic Position (D2)         (C7)       Shallow Aguitard (D3)							
Field Observations:								
Surface Water Present? Yes No X Depth (inches):								
Water Table Present? Yes X No Depth (inches):								
Saturation Present? Yes X No Depth (inches):	wetiand Every Present? Tes A No							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:							
Remarks:								

Sampling Point: W-2-08 DP1

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	
1				Number of Dominant Species
2.				That Are OBL, FACW, or FAC: 1 (A)
3.				
				Total Number of Dominant
				Species Across All Strata: <u>2</u> (B)
				Percent of Dominant Species
7		= Total Co		That Are OBL, FACW, or FAC: <u>50</u> (A/B)
			ver	Duravalan as in day wantshaat
Copling/Chruh Stratum (Distaire)				Prevalence Index worksheet:           Total % Cover of:         Multiply by:
Sapling/Shrub Stratum (Plot size:)				
1				OBL species <u>10</u> x 1 = <u>10</u>
2				FACW species <u>25</u> X 2 = <u>50</u>
3			. <u> </u>	FAC species X 3 =
4				FACU species 20 X 4 = 80
5				UPL species $X 5 =$
6				
7				Column Totals: <u>55</u> (A) <u>140</u> (B)
		= Total Co	ver	
				Prevalence Index = $B/A = 2.55$
Herb Stratum (Plot size:)				
1. Fallopia japonica	20	Y	FACU	Hydrophytic Vegetation Indicators:
2. Persicaria hydropiper	10		OBL	Rapid Test for Hydrophytic Vegetation
3. Pilea fontana	05	Y	FACW	Dominance Test is > 50%
4.				<u>x</u> Prevalence Test is $\leq 3.0^1$
5.				Morphological Adaptations <sup>1</sup> (Provide supporting
6.				data in Remarks or on a separate sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
10				
11				
12		Tatal Ca		
	55	= Total Co	ver	
Woody Vine Stratum (Plot size:)				Hydrophytic Vegetation
1				Present? Yes X No
2				
3				
4				
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			L
	,			

SOIL
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Profile Description: (Describe to the depth needed to document the indie Depth Matrix Redox Features						or confirm	the absence	e of indicators.)				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	R	emarks			
0-5	10YR 4/2	100	None				SAND	Sand Clay Loam				
5-12	10YR 3/2	85	10YR 5/8	15			SAND	Sand Clay Loam				
12-16	10YR 4/1	100	None				SAND	Clay Sand				
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covere	d or Coate	d Sand Gra	ains. <sup>2</sup>	Location: PL=Pore	ELining, M=Matrix.			
Histic Black Hydro Stratif Deple Thick Sandy Sandy Sandy Dark S	Indicators: ol (A1) Epipedon (A2) Histic (A3) gen Sulfide (A4) ed Layers (A5) ed Below Dark Surf Dark Surface (A12) Mucky Mineral (S1 Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) (LRR F f Hydrophytic veget	) R, MLRA 149	-	B) face (S9) Mineral (f d Matrix (F rix (F3) ourface (F6 c Surface ( ssions (F8)	(LRR R, M =1) (LRR k 2) 5) (F7) )	LRA 149B (, L)	2 cm Coas 5 cm Dark Poly Thin Iron- Pied Mesi Red Very Othe	st Prairie Redox (A Mucky Peat or Pe Surface (S7) <b>(LRF</b> value Below Surface Dark Surface (S9) Mangenese Masse Imont Floodplain Sc ic Spodic (TA6) <b>(MI</b> Parent Material (TF Shallow Dark Surf er (Explain in Rema	K, L, MLRA 149B) 16) (LRR K, L, R) at (S3) (LRR K, L, R) R K, L) te (S8) (LRR K, L) (LRR K, L) es (F12) (LRR K, L, R) bils (F19) (MLRA 149B) LRA 144A, 145, 149B) F2) ace (TF12)			
Restrictive	Layer (if observed)	):										
Type:					Llvd	ric Soil Pr	acont?	Vos	X No			
Depth (ir	nches):				пуа	Hydric Soil Present? Yes X No						
Remarks:												

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: October 2, 2013						
Applicant/Owner: Pennsylvania Department of Transportation State: Pennsylvania State: P							
Investigator(s): Chris Howsare, Chris Salvatico							
Landform (hillslope, terrace, etc.) Floodplain Loo	cal relief (concave, convex, none): <u>None</u>						
Slope (%):0 Lat:40° 58' 44.512" N	Long: 75° 12' 1.496" W Datum: NAD83						
Soil Map Unit Name: Cy - CUT AND FILL LAND	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 X, Soil , or Hydrology X significantly disturbed	Are "Normal Circumstances" present? Yes X No						
Are Vegetation, Soil, or Hydrologynaturally problematic?	? (If needed, explain any answers in Remarks.)						
SUMMARY OF FINDINGS – Attach site map showing sar	npling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area						
Hydric Soil Present? Yes No X	within a Wetland? Yes <u>No X</u>						
Wetland Hydrology Present?     Yes     No     X	If yes, optional Wetland Site ID:						
Remarks: The area sits along a tributary of Pocono Creek under I-80							
Remarks. The area sits along a tribulary of Pocono Creek under 1-00							
HYDROLOGY							
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)						
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)						
Surface Water (A1) Water-Stained Leav	ves (B9) Drainage Patterns (B10)						
High Water Table (A2)       Aquatic Fauna (B13)       Moss Trim Lines (B16)         Saturation (A3)       Marl Deposits (B15)       Dry-Season Water Table (C2)							
Saturation (AS)     Main Deposits (BTS)     Dify-Season Water Table (C2)       Water Marks (B1)     Hydrogen Sulfide Odor (C1)     Crayfish Burrows (C8)							
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)							
Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)							
Iron Deposits (B5) Thin Muck Surface (							
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	emarks) Microtopographic Relief (D4)						
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)						
Field Observations:							
Surface Water Present? Yes No X Depth (inches):							
Water Table Present? Yes No X Depth (inches):	Wetland Undrelam: Brocent() Vec No. V.						
Saturation Present? Yes No X Depth (inches):	Wetland Hydrology Present? Yes <u>No X</u>						
(includes capillary fringe)							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro	evious inspections), if available:						
Remarks:							

Sampling Point: W-2-08 DP2

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		
<u>1.</u>				Number of Dominant Species
2.				That Are OBL, FACW, or FAC: 1 (A)
3.			·	
4.				Total Number of Dominant
			·	Species Across All Strata: 2 (B)
			·	
_				Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
/		= Total Co		That Are OBL, FACW, or FAC: <u>50</u> (A/B)
			Wei	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)				Total % Cover of: Multiply by:
				OBL species $10$ $x = 10$
				FACW species <u>25</u> X 2 = <u>50</u>
			·	FAC species X 3 =
			·	FACU species 20 X 4 = 80
5				UPL species X 5 =
6				Column Totals: 55 (A) 140 (B)
7				$\begin{array}{c} \text{Column rotals.} \underline{33} \\ \text{(A)} \underline{140} \\ \text{(B)} \end{array}$
		= Total Co	over	
				Prevalence Index = $B/A = 2.55$
Herb Stratum (Plot size:)		.,		Hydrophytic Vegetation Indicators:
1. Fallopia japonica	20	<u> </u>	FACU	Rapid Test for Hydrophytic Vegetation
2. Persicaria hydropiper		Y	OBL	Dominance Test is > 50%
3. Pilea fontana	25	Y	FACW	
4				<u>X</u> Prevalence Test is $\leq 3.0^{1}$
5				Morphological Adaptations <sup>1</sup> (Provide supporting
6				data in Remarks or on a separate sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				
9				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
10				be present, unless disturbed or problematic.
11				
12				
	55	= Total Co	over	
Woody Vine Stratum (Plot size:)				Hydrophytic
1				Vegetation
2.				Present? Yes X No
3.				
4.				
		= Total Co	ver	
		- 1010100		
Remarks: (Include photo numbers here or on a separate	aboot )			
Remarks. (include photo numbers here of on a separate	sneet.)			

SOIL

Profile Desc Depth	ription: (Describe Matrix	to the dept	<b>h needed to docur</b> Re	<b>nent the ir</b> dox Featur	idicator o	r confirm	the absence	e of indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rem	arks	
0-16	10YR 4/2	100	None				SAND	Sand Clay Loam		
<u> </u>								·		
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Li	ning, M=Matrix.	
Hydric Soil					(0.0) (1.5)			tors for Problematic I	•	
Histos	. ,		Polyvalue Bel		(S8) <b>(LR</b>	R R,		n Muck (A10) (LRR K,		
Histic Epipedon (A2) Black Histic (A3)			MLRA 149	•				st Prairie Redox (A16)		
	Thin Dark Sur				-	n Mucky Peat or Peat (				
				Mineral (F		., L)		k Surface (S7) <b>(LRR K</b>		
				amy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LR pleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L						
· ·		ace (A11)						· / ·		
Thick Dark Surface (A12) Redox Dark Surface			. ,				-Mangenese Masses (			
Sandy Mucky Mineral (S1) Depleted Dark Surfac				-7)			mont Floodplain Soils			
Sandy Gleyed Matrix (S4)Redox Depressions (F				sions (F8)				ic Spodic (TA6) (MLR	-	
Sandy Redox (S5)								Parent Material (TF2)		
Stripped Matrix (S6)							Very	/ Shallow Dark Surface	e (TF12)	
Dark S	Surface (S7) (LRR F	R, MLRA 149	B)				Othe	er (Explain in Remarks	)	
<sup>3</sup> Indicators of	f Hydrophytic veget	ation and we	tland hydrology mu	st be prese	ent, unless	disturbed	or problema	tic.		
Restrictive	Layer (if observed	):								
Туре:					Lbook	sie Ceil De		Vee	Na Y	
Depth (in	ches):				Нуа	ric Soil Pr	esent?	Yes	No	
Remarks:										

Project/Site: 1-80 Reconstruction	City/County: Monroe Sampling Date: Sep 17, 2013
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-01 DP1
Investigator(s): Chris Howsare, Chris Salvatico	Section, Township, Range: Stroud Twp & E Stroudsburg Borough
Landform (hillslope, terrace, etc.) Flat Loc	cal relief (concave, convex, none): <u>None</u>
Slope (%):0 Lat: 40° 58' 54.917" N	Long: 75° 12' 43.734" W Datum: NAD83
Soil Map Unit Name: Ph - PHILO SILT LOAM, Cy - CUT AND FILL L	AND 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 X, Soil , or Hydrology significantly disturbed	d? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil _X_, or Hydrologynaturally problematic	? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sar	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes NoX	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: PEM
businesses (Perkins and a gas station). There is also abundant white clove	er in the upland area, but none in the wetland.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)         Surface Water (A1)       Water-Stained Leave         X       High Water Table (A2)       Aquatic Fauna (B13)         X       Saturation (A3)       Marl Deposits (B13)         Water Marks (B1)       Hydrogen Sulfide O         Sediment Deposits (B2)       Oxidized Rhizosphe         Drift Deposits (B3)       Presence of Reduct         Iron Deposits (B5)       Thin Muck Surface         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Reduct         Sparsely Vegetated Concave Surface (B8)       State (B8)	ves (B9)       X       Drainage Patterns (B10)         B)       Moss Trim Lines (B16)         Dry-Season Water Table (C2)         Crayfish Burrows (C8)         eres on Living Roots (C3)         ed Iron (C4)         ion in Tilled Soils (C6)         (C7)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present?       Yes X       No       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)       Ves       No       X       Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Remarks: Numerous areas along the stream bank that are slumping and u	undercut were included as part of the OHW.

Sampling Point: W-3-01 DP1

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status		
1				Number of Dominant Species	
2.				That Are OBL, FACW, or FAC:	<u>1</u> (A)
3.					
4				Total Number of Dominant	
-				Species Across All Strata:	<u>1</u> (B)
-				Percent of Dominant Species	
7				That Are OBL, FACW, or FAC:	100 (A/B)
		= Total Cov	er		
				Prevalence Index worksheet:	Maddin I. a have
Sapling/Shrub Stratum (Plot size:)					Multiply by:
1				OBL species x	1 =
2				FACW species X	2 =
3					3 =
4					
5					4 =
6				UPL species X	5 =
				Column Totals: (	(B)
7		= Total Cov	er	`	、 ,
		- 10tal 00V			
Herb Stratum (Plot size: )				Prevalence Index = B/	A =
`	100	V		Hydrophytic Vegetation Indicato	rs:
1. Grass species		Y		Rapid Test for Hydrophytic V	
2				Dominance Test is > 50%	ogotation
3		. <u> </u>			
4				Prevalence Test is $\leq 3.0^1$	
5				Morphological Adaptations <sup>1</sup> (	
6				data in Remarks or on a sepa	arate sheet)
7.				X Problematic Hydrophytic Veg	etation <sup>1</sup> (Explain)
8.					
9.		·		<sup>1</sup> Indicators of hydric soil and wetla	
10				be present, unless disturbed or p	roblematic.
10					
· · · ·					
10					
12		Tatal Car			
12	100	= Total Cov	er		
12	100	= Total Cov	er		
12.         Woody Vine Stratum       (Plot size:)	100	= Total Cov	er	Hydrophytic	
12				Vegetation	No. Y
12.       Woody Vine Stratum       (Plot size:					NoX
12.           Woody Vine Stratum         (Plot size:)           1.        )				Vegetation	NoX
12.         Woody Vine Stratum       (Plot size:         1.         2.         0.				Vegetation	No _X
12.         Woody Vine Stratum       (Plot size:         1.         2.         3.				Vegetation	No _X
12.         Woody Vine Stratum       (Plot size:         1.         2.         3.				Vegetation	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.				Vegetation	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>
12.         Woody Vine Stratum       (Plot size:)         1.	    sheet.)	  = Total Cov	  er	Vegetation Present? Yes	No <u>_X</u>

SO	l	L
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Profile Desc Depth	cription: (Describe t Matrix	to the dep		ment the in edox Featu		or confirm	the absence	e of indicators.)	
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	R	emarks
0-16	2.5/YR 2.5/1	85	5YR 5/8	15			SANDY	Silt Loam	
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, C	CS=Covered	d or Coate	d Sand Gra	ains. <sup>2</sup>	Location: PL=Pore	e Lining, M=Matrix.
Hydric Soil	Indicators:						Indicat	ors for Problema	tic Hydric Soils <sup>3</sup> :
Histos	ol (A1)		Polyvalue Be		e (S8) <b>(LR</b>	RR,	2 cm	n Muck (A10) <b>(LRR</b>	K, L, MLRA 149B)
	Epipedon (A2)		MLRA 149	-					16) <b>(LRR K, L, R)</b>
	Histic (A3)		Thin Dark Su					-	eat (S3) (LRR K, L, R)
	gen Sulfide (A4)		Loamy Mucky			(, L)		Surface (S7) (LR	
	ed Layers (A5)	<i></i>	Loamy Gleye	•	2)				ce (S8) (LRR K, L)
	ed Below Dark Surfa	ace (A11)	X Depleted Mat					Dark Surface (S9)	
	Dark Surface (A12)		x Redox Dark S					-	es (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dar						oils (F19) <b>(MLRA 149B</b> LRA 144A, 145, 149B)
	Gleyed Matrix (S4) Redox (S5)		Redox Depre	SSIONS (FO)				Parent Material (T	
	ed Matrix (S6)							Shallow Dark Sur	
	Surface (S7) <b>(LRR R</b> ,	MIRA 14	9B)					er (Explain in Rema	. ,
	f Hydrophytic vegeta			ust be prese	ent, unles	s disturbed			
Restrictive	Layer (if observed):	:							
Type:									
Depth (ir	nches):				Hyd	lric Soil Pr	esent?	Yes	<u>X</u> No
Remarks:									

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 17, 2013			
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-01 DP2			
Investigator(s): Chris Howsare, Chris Salvatico	Section, Township, Range: Stroud Twp & E Stroudsburg Borough			
Landform (hillslope, terrace, etc.) Flat Loc	cal relief (concave, convex, none): None			
Slope (%):0 Lat: 40° 58' 54.917" N	Long: 75° 12' 43.734" W Datum: NAD83			
Soil Map Unit Name: Ph - PHILO SILT LOAM, Cy - CUT AND FILL L	AND 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 Hydrologysignificantly disturbed	? Are "Normal Circumstances" present? Yes X No			
Are Vegetation, Soil, or Hydrologynaturally problematic?	? (If needed, explain any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sar	npling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes NoX	Is the Sampled Area			
Hydric Soil Present?         Yes         No         X	within a Wetland? Yes No X			
Wetland Hydrology Present?         Yes         No         X	If yes, optional Wetland Site ID:			
HYDROLOGY				
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Drift Deposits (B3) Presence of Reduce	<ul> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>(C7)</li> </ul>			
Field Observations:				
Surface Water Present? Yes No X Depth (inches):				
Water Table Present?       Yes       No       X       Depth (inches):	Wetland Hydrology Present? Yes No X			
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro	evious inspections), if available:			
Remarks: Numerous areas along the stream bank that are slumping and u	indercut were included as part of the OHW.			

Sampling Point: W-3-01 DP2

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	
1				Number of Dominant Species
2				That Are OBL, FACW, or FAC: _1 (A)
3				Tatal New Long & Dawland
4				Total Number of Dominant Species Across All Strata: 3 (B)
5				opecies Across Air Strata. <u>5</u> (b)
6.				Percent of Dominant Species
7.				That Are OBL, FACW, or FAC: 33 (A/B)
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)				Total % Cover of: Multiply by:
1				OBL species x 1 =
2.				
3.				
4.				FAC species X 3 =
5.				FACU species X 4 =
6				UPL species X 5 =
7.				Column Totals: (A) (B)
		= Total Co	ver	
		- 1010100		Development last D/A
Herb Stratum (Plot size:)				Prevalence Index = B/A =
1. Grass species	25	Y	FAC	Hydrophytic Vegetation Indicators:
2. Trifolium repens	45	Y	FACU	Rapid Test for Hydrophytic Vegetation
3. Securigera varia		Y	FACU	Dominance Test is > 50%
				Prevalence Test is $\leq 3.0^{1}$
				Morphological Adaptations <sup>1</sup> (Provide supporting
				data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7				
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12				
	100	= Total Co	ver	
Weedy Vine Stratum (Distaire)				
Woody Vine Stratum (Plot size:)				Hydrophytic Vegetation
1				Present? Yes No X
2				
3				
4				
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			

SOIL	
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	inches)	Matrix		R	edox Featur					
2-Up       Rock & Fill		Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rer	marks
me:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matrix.         ric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, L)       2 cm Muck (A10) (LRR K, L, MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Stratified Layers (A5)       Loamy Gleyed Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Stratified Peloew Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 145, 14         Sandy Redox (S5)       Red Parent Material (TF2)       Very Shallow Dark Surface (T12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)       Caters of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         trictive Layer (if ob	0-12	10YR 3/3	100	None				SANDY	Silt Loam	
Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :	12-Up	Rock & Fill			<u> </u>					
Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :										
Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :			<u> </u>							
Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :										
Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :			·				·			
	be: C=C	oncentration, D=De	pletion, RM=		CS=Covered	or Coate	d Sand Gra	ains. 2	Location: PL=Pore L	_ining, M=Matrix
	Iric Soil	Indicators:						Indicat	ors for Problematic	: Hvdric Soils <sup>3</sup> :
Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Mucky Peat or Peat (S3) (LRR K, L,         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 14         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No         Trictive Layer (if observed):       12       Yes       No       X         Popth (inches):       12       Yes       No       X				Polyvalue Be	low Surface	(S8) <b>(LR</b>	R R,			•
Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 14G, Sandy Redox (S5)         Sandy Redox (S5)       Red Parent Material (TF2)       Red Parent Material (TF2)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Trictive Layer (if observed):       12         Type:       Rock         Depth (inches):       12	Histic	Epipedon (A2)		MLRA 14	9B)			Coas	st Prairie Redox (A16	6) <b>(LRR K, L, R</b>
Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 145, 142, 142, 143, 145, 142, 144, 145, 142, 144, 145, 144, 144	Black	Histic (A3)		Thin Dark Su	rface (S9) <b>(I</b>	LRR R, M	LRA 149B)	5 cm	Mucky Peat or Peat	t (S3) <b>(LRR K, I</b>
Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 1         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Sandy Redox (S5)       Red Parent Material (TF2)       Very Shallow Dark Surface (TF12)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Yes       No       X         Type:       Rock       12       No       X	_ Hydro	gen Sulfide (A4)		Loamy Muck	y Mineral (F	1) (LRR K	ζ, L)	Dark	Surface (S7) (LRR	K, L)
Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Mangenese Masses (F12) (LRR K, L         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 1         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Sandy Redox (S5)       Red Parent Material (TF2)       Very Shallow Dark Surface (TF12)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)       Other (Explain in Remarks)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Yes       No       X         Type:       Rock       No       X       X       X       X	Stratif	ied Layers (A5)		Loamy Gleye	d Matrix (F2	2)		Poly	value Below Surface	(S8) <b>(LRR K, I</b>
Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 1         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Sandy Redox (S5)       Red Parent Material (TF2)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         iccators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Trictive Layer (if observed):         Type:       Rock         Depth (inches):       12	Deple	ted Below Dark Surf	ace (A11)	Depleted Ma	trix (F3)			Thin	Dark Surface (S9) (I	LRR K, L)
Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 14         Sandy Redox (S5)       Red Parent Material (TF2)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         iccators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Trictive Layer (if observed):         Type:       Rock         Depth (inches):       12	Thick	Dark Surface (A12)		Redox Dark	Surface (F6)	)		Iron-	Mangenese Masses	(F12) <b>(LRR K,</b>
Sandy Redox (S5)       Red Parent Material (TF2)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Image: Constraint of the second	_ Sandy	Mucky Mineral (S1)	)			-7)		Pied	mont Floodplain Soil	s (F19) <b>(MLRA</b>
Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Iterative Layer (if observed):         Type:       Rock         Depth (inches):       12	_ Sandy	Gleyed Matrix (S4)		Redox Depre	essions (F8)			Mesi	ic Spodic (TA6) <b>(MLF</b>	RA 144A, 145, 1
Dark Surface (S7) (LRR R, MLRA 149B)      Other (Explain in Remarks)         icators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         trictive Layer (if observed):         Type:       Rock         Depth (inches):       12         No       X	-									
Index of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Intrictive Layer (if observed):         Type:       Rock         Depth (inches):       12    No X		. ,								
trictive Layer (if observed): Type: Rock Depth (inches): 12 Hydric Soil Present? Yes No X	_ Dark S	Surface (S7) <b>(LRR R</b>	8, MLRA 149	9B)				Othe	er (Explain in Remark	(S)
Type:     Rock       Depth (inches):     12         Hydric Soil Present?     Yes     No     Xes	icators c	of Hydrophytic vegeta	ation and we	etland hydrology m	ust be prese	ent, unless	disturbed	or problemat	tic.	
Depth (inches): 12 Hydric Soil Present? Yes No X			):							
	··					Hyd	ric Soil Pr	esent?	Yes	No
harks:	Deptii (ii	icites). 12								
narks:										
	narks:									

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 17, 2013				
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-02 DP1				
Investigator(s): Chris Howsare, Chris Salvatico	Section, Township, Range: <u>Stroud Twp &amp; E Stroudsburg Borough</u>				
Landform (hillslope, terrace, etc.) Depression Loc	cal relief (concave, convex, none): Concave				
Slope (%): Lat: 40° 58' 49.515" N					
Soil Map Unit Name: Sh - SHEFFIELD SILT LM & WyE - WYOMING GRAV					
Are climatic / hydrologic conditions on the site typical for this time of year?					
Are Vegetation, Soil, or Hydrologysignificantly disturbed					
Are Vegetation, Soil, or Hydrologynaturally problematic?					
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area				
Hydric Soil Present? Yes X No	within a Wetland? Yes X No				
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:POW, PEM, PSS, PFO				
Remarks: Wetland consists of a large open water body with a wet fringe.					
remarke. Weitand conclusio of a large open water body with a wet minge.					
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)           X         Surface Water (A1)         Water-Stained Leav	res (B9) X Drainage Patterns (B10)				
High Water Table (A2) Aquatic Fauna (B13	Moss Trim Lines (B16)				
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)				
Water Marks (B1) Hydrogen Sulfide O					
Sediment Deposits (B2) Oxidized Rhizosphe Drift Deposits (B3) Presence of Reduce	ed Iron (C4) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)				
	ion in Tilled Soils (C6) Geomorphic Position (D2)				
Iron Deposits (B5) Thin Muck Surface (					
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re					
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes X No Depth (inches):					
Water Table Present? Yes X No Depth (inches):					
Saturation Present? Yes X No Depth (inches):	wetiand Every Present? Tes A No				
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections). if available:				
Remarks:					

Sampling Point: W-3-02 DP1

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30 )		Species?	Status		
1. Quercus palustris	10	у	FACW	Number of Dominant Species	
2. Quercus velutina	10	у		That Are OBL, FACW, or FAC: <u>5</u> (A)	)
3.					
4.				Total Number of Dominant	、
5.				Species Across All Strata: 7 (B)	)
6.				Demonst of Deminent Creation	
7.				Percent of Dominant Species That Are OBL, FACW, or FAC: 71 (A/E	B)
···	20	= Total Co	ver		σ,
				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: 30 )				Total % Cover of: Multiply by:	
1. Cornus amomum	15	У	FACW	OBL species x 1 =	
	10	<u> </u>	FACW		
2				FACW species X 2 =	
				FAC species X 3 =	
5				FACU species X 4 =	
				UPL species X 5 =	
6				Column Totals: (A) (E	B)
7		Tatal Or			0)
	25	= Total Co	ver		
(Distribution (Distribution))				Prevalence Index = B/A =	
Herb Stratum (Plot size: 5)	~~			Hydrophytic Vegetation Indicators:	
1. Sphagnum	20	у	NI	Rapid Test for Hydrophytic Vegetation	
2. Dennstaedtia punctilobula	15	<u>n</u>	FACU	x Dominance Test is > 50%	
3. Symplocarpus foetidus	30	у			
4. Rosa multiflora	5	n		Prevalence Test is $\leq 3.0^1$	
5. Microstegium vimineum	20	у	FAC	Morphological Adaptations <sup>1</sup> (Provide supportin	ng
6. Cyperaceae sp				data in Remarks or on a separate sheet)	
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	)
8					
9				<sup>1</sup> Indicators of hydric soil and wetland hydrology mu	ust
10				be present, unless disturbed or problematic.	
11					
12					
	105	= Total Co	ver		
Woody Vine Stratum (Plot size:)				Hydrophytic	
1				Vegetation	
2.				Present? Yes X No	
3.					
4.					
		= Total Co	vor		
		- 10(0) 00	ver		
Demorker (Include abote numbers here er en e constate	aboat )				
Remarks: (Include photo numbers here or on a separate	sneet.)				

SOIL

Profile Deso Depth	cription: (Describe Matrix	to the dep		nent the in dox Featur		or confirm	the absence of ind	licators.)
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-10	10YR 2/1	100					Silty Clay Loam	
								_
		<u> </u>						
		. <u> </u>						
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM	=Reduced Matrix, C	S=Covered	or Coate	d Sand Gi	rains. <sup>2</sup> Locatio	on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators for	Problematic Hydric Soils <sup>3</sup> :
•	ol (A1)		Polyvalue Bel	ow Surface	(S8) (LR	R R.		(A10) (LRR K, L, MLRA 149B)
	Epipedon (A2)				· / ·			ie Redox (A16) (LRR K, L, R)
	Histic (A3)		Thin Dark Sur	,	_RR R. M	LRA 149E		Peat or Peat (S3) (LRR K, L, R)
	gen Sulfide (A4)		Loamy Mucky	· / ·			· ·	ce (S7) (LRR K, L)
	ied Layers (A5)		Loamy Gleyed		<i>,</i> .	-, _ <b>,</b>		Below Surface (S8) (LRR K, L)
	ted Below Dark Surf	ace (A11)	X Depleted Mati	`	,		,	Surface (S9) <b>(LRR K, L)</b>
·	Dark Surface (A12)		Redox Dark S	· · /				nese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1	)	Depleted Dark	. ,				loodplain Soils (F19) (MLRA 149B)
,	Gleyed Matrix (S4)	•	Redox Depres	`	')			dic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)			5310113 (1 0)			·	Material (TF2)
	ed Matrix (S6)							w Dark Surface (TF12)
	Surface (S7) <b>(LRR F</b>		וסנ					ain in Remarks)
			-				、 :	
<sup>3</sup> Indicators o	f Hydrophytic veget	ation and w	etland hydrology mu	ist be prese	ent, unless	s disturbed	d or problematic.	
Restrictive	Layer (if observed)	):						
Type:								
Depth (ir	nches):				Hyd	ric Soil P	resent?	Yes <u>X</u> No
Remarks:								

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 17, 2013				
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-02 DP2				
Investigator(s): Chris Howsare, Chris Salvatico	Section, Township, Range: Stroud Twp & E Stroudsburg Borough				
Landform (hillslope, terrace, etc.) Depression Loc	al relief (concave, convex, none): Concave				
Slope (%): Lat: 40° 58' 49.515" N	Long: 75° 12' 47.072" W Datum: NAD83				
Soil Map Unit Name: Sh - SHEFFIELD SILT LM & WyE - WYOMING GRAV	'ELLY SY LM, 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 Hydrologysignificantly disturbed	? Are "Normal Circumstances" present? Yes X No				
Are Vegetation, Soil, or Hydrologynaturally problematic?	(If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area				
Hydric Soil Present? Yes No X	within a Wetland? Yes NoX				
Wetland Hydrology Present?         Yes No _X	If yes, optional Wetland Site ID:				
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Drift Deposits (B3) Presence of Reduce	)       Moss Trim Lines (B16)         Dry-Season Water Table (C2)         dor (C1)       Crayfish Burrows (C8)         res on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         ed Iron (C4)       Stunted or Stressed Plants (D1)         on in Tilled Soils (C6)       Geomorphic Position (D2)         (C7)       Shallow Aquitard (D3)				
Field Observations:					
Surface Water Present? Yes <u>No</u> Depth (inches):					
Water Table Present? Yes <u>No</u> Depth (inches):	Wetland Hydrology Present? Yes No X				
Saturation Present? Yes No Depth (inches): (includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:				
Remarks:					

Sampling Point: W-3-02 DP2

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status		
1. Cedrus sp	20	y	UPL	Number of Dominant Species	
2. Platanus occidentalis	50	у	FACW	That Are OBL, FACW, or FAC: 1	(A)
3.					
4.				Total Number of Dominant Species Across All Strata: 2	(B)
5					(D)
6.				Percent of Dominant Species	
7.					(A/B)
	70	= Total Co	ver		· · /
				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size:)				Total % Cover of:Multiply by:	_
1				OBL species x 1 = _0	
2				FACW species 50 X 2 = 100	
3				FAC species X 3 = 0	
4				FACU species X 4 = 0	
5				UPL species 20 $X = 100$	
6					_
7				Column Totals: <u>70</u> (A) <u>200</u>	(B)
		= Total Co	ver		
				Prevalence Index = $B/A = 2.9$	
Herb Stratum (Plot size:)				Hydrophytic Vegetation Indicators:	_
1				Rapid Test for Hydrophytic Vegetation	
2				Dominance Test is > 50%	
3				x Prevalence Test is $\leq 3.0^{1}$	
4				Morphological Adaptations <sup>1</sup> (Provide supp	orting
5				data in Remarks or on a separate sheet)	oning
6				Problematic Hydrophytic Vegetation <sup>1</sup> (Exp	lain)
7					iairi)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology	v must
9				be present, unless disturbed or problematic.	,
10					
11		. <u> </u>			
12		= Total Co			
			VEI		
Woody Vine Stratum (Plot size: )				Hydrophytic	
1, (****** <u></u> ,				Vegetation	
2.				Present? Yes <u>x</u> No	
3.					
4.					
		= Total Co	ver		
		- 10tai 00			
Remarks: (Include photo numbers here or on a separate	sheet.)				
	0.1001.)				

SOIL

Profile Des Depth	cription: (Describe Matrix	to the dept		ment the indedox Feature		or confirm	the absence	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Re	marks
0-10	10YR 3/3						Silt loam		
	·								
<sup>1</sup> Type: C=C	Concentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains. <sup>2</sup> l	_ocation: PL=Pore	Lining, M=Matrix.
•	Indicators:							ors for Problemation	•
	sol (A1)		Polyvalue Bel		(S8) <b>(LR</b>	R R,		Muck (A10) (LRR F	· · ·
	Epipedon (A2)		MLRA 149					t Prairie Redox (A1	
	Histic (A3)		Thin Dark Su					•	t (S3) <b>(LRR K, L, R)</b>
	gen Sulfide (A4)		Loamy Mucky		, <b>.</b>	K, L)		Surface (S7) (LRR	
	ied Layers (A5)	Loamy Gleye	. ,			,	value Below Surface		
	ted Below Dark Surf	Depleted Mat	( )				Dark Surface (S9) (		
	Dark Surface (A12)	Redox Dark S	( )	_`			Iron-Mangenese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B)		
	/ Mucky Mineral (S1		Depleted Darl		7)				
	/ Gleyed Matrix (S4)		Redox Depres	ssions (F8)					RA 144A, 145, 149B)
	/ Redox (S5)							Parent Material (TF:	,
	ed Matrix (S6)							Shallow Dark Surfa	
Dark	Surface (S7) <b>(LRR F</b>	, MLRA 149	9В)				Othe	r (Explain in Remarl	<s)< td=""></s)<>
<sup>3</sup> Indicators of	of Hydrophytic veget	ation and we	etland hydrology mu	ist be presei	nt, unless	s disturbed	d or problemat	ic.	
Restrictive Type:	Layer (if observed)	):							
					Hyd	ric Soil P	resent?	Yes	No X
Depth (i	iches).								
Remarks:									

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 25, 2013			
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-04 DP1			
Investigator(s): LMM, KLL	Section, Township, Range: Stroud Twp & E Stroudsburg Borough			
Landform (hillslope, terrace, etc.) Terrace	Local relief (concave, convex, none): Concave			
Slope (%): Lat: 40° 59' 10.773" N	Long: <u>75° 13' 17.954" W</u> Datum: NAD83			
Soil Map Unit Name: Cy - CUT AND FILL LAND	NWI Classification:			
Are climatic / hydrologic conditions on the site typical for this time of year				
Are Vegetation, Soil, or Hydrologysignificantly disturl	bed? Are "Normal Circumstances" present? Yes X No			
Are Vegetation, Soil, or Hydrologynaturally problema	atic? (If needed, explain any answers in Remarks.)			
	sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area			
Hydric Soil Present? Yes X No	within a Wetland? Yes X No			
Wetland Hydrology Present?     Yes     X     No	If yos, optional Watland Site ID: DEM			
	_			
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)			
X Surface Water (A1) X Water-Stained Li				
High Water Table (A2)	B13) Moss Trim Lines (B16)			
X Saturation (A3) Marl Deposits (B	Dry-Season Water Table (C2)			
Water Marks (B1) X Hydrogen Sulfide	e Odor (C1) Cravfish Burrows (C8)			
	pheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3) Presence of Red	Stunted or Stressed Plants (D1)			
	uction in Tilled Soils (C6) X Geomorphic Position (D2)			
Iron Deposits (B5) Thin Muck Surfa				
Inundation Visible on Aerial Imagery (B7) Other (Explain in Sparsely Vegetated Concave Surface (B8)	n Remarks) Microtopographic Relief (D4) FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present? Yes X No Depth (inches):				
Water Table Present? Yes X No Depth (inches):	Wetland Hydrology Present? Yes X No			
Saturation Present? Yes X No Depth (inches):	4 Wetland Hydrology Present? Yes X No			
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:			
Remarks:				

Sampling Point: W-3-04 DP1

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')	% Cover		Status	
1. Betula alleghaniensis	8	Ý	FAC	Number of Dominant Species
			· · · · · · · · · · · · · · · · · · ·	That Are OBL, FACW, or FAC: 3 (A)
1				Total Number of Dominant
			·	Species Across All Strata: <u>3</u> (B)
5				
6			·	Percent of Dominant Species
7				That Are OBL, FACW, or FAC: 100 (A/B)
	8	= Total Co	over	
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)				Total % Cover of: Multiply by:
1				OBL species 9 x 1 = 9
2.				FACW species 17 $X 2 = 34$
1				FAC species <u>52</u> X 3 = <u>156</u>
				FACU species 8 X 4 = 32
			· . <u></u>	UPL species X 5 =
6			·	
7			. <u></u>	Column Totals: <u>76</u> (A) <u>231</u> (B)
		= Total Co	over	
				Prevalence Index = $B/A = 3.04$
Herb Stratum (Plot size: 5' )				
1. Impatiens capensis	15	Y	FACW	Hydrophytic Vegetation Indicators:
2. Persicaria hydropiper	8		OBL	Rapid Test for Hydrophytic Vegetation
3. Microstegium vimineum	40	Y		X Dominance Test is > 50%
		I	FACU	X Prevalence Test is $\leq 3.0^1$
4. Fallopia japonica				Morphological Adaptations <sup>1</sup> (Provide supporting
5. Pilea pumila	2		FACW	data in Remarks or on a separate sheet)
6. Toxicodendron radicans	4		FAC	
7. Symplocarpus foetidus	1		OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				1
9				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
10				be present, unless disturbed or problematic.
11			·	
10			· · · · · · · · · · · · · · · · · · ·	
12	78	= Total Co		
	10			
Woody Vine Stratum (Plot size: )				Unders had a
				Hydrophytic Vegetation
1			·	Present? Yes X No
2				
3				
4				
		= Total Co	over	
Develop (herbede ab etc. south are been an en en en er				
Remarks: (Include photo numbers here or on a separate	sneet.)			

SOIL
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Profile Dese Depth	cription: (Describe Matrix	to the dept		<b>nent the ir</b> dox Featur		r confirm	the absence	e of indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-4	10YR 2/1	100					Silty clay			
4-10	10YR 2/1	65					Silty clay	Saturated much	(	
	10YR 3/1	30								
10-13	10YR 3/1	50					Sandy silt			
	10YR 4/2	50								
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covered	l or Coated	d Sand G	rains. <sup>2</sup>	<sup>2</sup> Location: PL=Po	ore Lining,	M=Matrix.
Histic Black X Hydro X Stratif Deple Thick Sandy Sandy Sandy Dark S	Indicators: ol (A1) Epipedon (A2) Histic (A3) gen Sulfide (A4) ied Layers (A5) ted Below Dark Surf Dark Surface (A12) Mucky Mineral (S1 Mucky Mineral (S1 Mucky Mineral (S1 Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) (LRR R f Hydrophytic veget	) R, MLRA 149	-	B) face (S9) ( Mineral (F d Matrix (F2 rix (F3) surface (F6) c Surface (I ssions (F8)	LRR R, Mi 1) (LRR K 2) - 7)	LRA 1491 (, L)	2 cn Coa 5 cn Darl Poly Thin Iron Piec Mes Red Very Othe	tors for Problem n Muck (A10) (LF st Prairie Redox n Mucky Peat or I k Surface (S7) (L value Below Surf Dark Surface (S -Mangenese Mas dmont Floodplain ic Spodic (TA6) ( Parent Material / Shallow Dark S er (Explain in Rer tic.	R K, L, M (A16) (LRI Peat (S3) ( RR K, L) face (S8) ( 9) (LRR K sess (F12) Soils (F19 MLRA 144 (TF2) urface (TF	LRA 149B) R K, L, R) (LRR K, L, R) (LRR K, L) (, L) (LRR K, L, R) (MLRA 149B) 4A, 145, 149B)
Restrictive	Layer (if observed)	):								
Type:					Llvd	ria Sail B	recent?	Vac	v	No
Depth (ir	nches):				нуа	ric Soil P	resent?	Yes _	X	No
Remarks:										

City/County: Monroe Sampling Date: Sep 25, 2013
State: Pennsylvania Sampling Point: W-3-06 DP1
Section, Township, Range: Stroud Twp & E Stroudsburg Borough
cal relief (concave, convex, none): <u>Concave</u>
Long: 75° 13' 33.907" W Datum: NAD83
NWI Classification:
Yes X No (If no, explain in Remarks.)
Are "Normal Circumstances" present? Yes X No
? (If needed, explain any answers in Remarks.)
mpling point locations, transects, important features, etc.
Is the Sampled Area
within a Wetland? Yes X No
If yes, optional Wetland Site ID: PSS/FO
Secondary Indicators (minimum of two required)
ves (B9)       X       Surface Soil Cracks (B6)         B)       Drainage Patterns (B10)         Moss Trim Lines (B16)       Dry-Season Water Table (C2)         crayfish Burrows (C8)       Crayfish Burrows (C8)         eres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         ed Iron (C4)       Stunted or Stressed Plants (D1)         ion in Tilled Soils (C6)       X         (C7)       Shallow Aquitard (D3)         emarks)       Microtopographic Relief (D4)
Wetland Hydrology Present? Yes X No
evious inspections), if available:

#### Sampling Point: W-3-06 DP1

Tree Stratum       (Plot size:3')       3: Cover       Species?       Status         1. Acer rubrum       25       Y       FAC         3		Absolute	Dominant	Indicator	Dominance Test worksheet:	
1. Acer rubrum       25       Y       FAC       Number of Dominant Species         2.	Tree Stratum (Plot size: 30')					
2.					Number of Dominant Species	
3.	2				That Are OBL, FACW, or FAC: 4	(A)
4.						
5.					Total Number of Dominant	
6.					Species Across All Strata: 6	(B)
6.	5					
7.					Percent of Dominant Species	
25         = Total Cover           Sapling/Shrub Stratum         (Plot size:)           1. Malus floribunda         25         Y         UPL           2. Lindera benzoin         15         Y         FACU           3. Acer rubrum         10         FAC         FACW species         38         x 1 = 38           4. Acer platanoides         5         UPL         FACU         FACU species         35         x 3 = 105           5. Rosa multiflora         2         FACU         FACU         FACU species         30         x 5 = 150           6.	7.					(A/B)
Sapling/Shrub Stratum         (Plot size:)           1. Malus floribunda         25         Y         UPL           2. Lindera benzoin         15         Y         FACW           3. Acer rubrum         10         FAC         FACW           4. Acer platnoides         5         UPL         FACU           5. Rosa multiflora         2         FACU         FACU           6				ver		_ 、 ,
Sapiling/Shrub Stratum       (Plot size:)         1. Malus floribunda       25       Y       UPL         2. Lindera benzoin       15       Y       FACW         3. Acer rubrum       10       FAC         4. Acer platancides       5       UPL         5. Rosa multiflora       2       FACU         6.					Prevalence Index worksheet:	
Image         Provide         Provide	Sapling/Shrub Stratum (Plot size: )					v:
2.       Lindera benzoin       15       Y       FACW         3.       Acer rubrum       10       FAC         4.       Acer rubrum       10       FAC         5.       Rosa multiflora       5       UPL         6.       FACU       Problematic       19       X 4 =       76         7.		25	V	IIDI		
3. Acer rubrum       10       FAC       FAC       105         4. Acer platanoides       5       UPL       FAC       FAC species       35       X 2 =       105         5. Rosa multiflora       2       FACU       FAC upL       FAC species       35       X 3 =       105         6.						
4.       Acer platanoides       5       UPL         5.       Rosa multiflora       2       FACU         6.			<u> </u>		FACW species <u>55</u> X 2 = <u>11</u>	0
4. Acer platanoides       5       UPL         5. Rosa multiflora       2       FACU         6.       -       -         7.       -       -         6.       -       -         7.       -       -         6.       -       -         7.       -       -         6.       -       -         7.       -       -         1.       -       -         2.       Symphyotrichum novi-belgii       20       Y         3. Acatypha virginica       15       Y       FACW         4.       12       FACW       -       -         5.       Leersia onyzoides       5       -       -         6.       -       -       -       -         7.       Juncus effusus       5       -       -         8.       Symphotrichum novae-angliae       2       -       -         9       OBL       -       -       -         1.       FACW       -       -       -         9.       Prevalence Test is        -       -       -         1.       -       - <t< td=""><td></td><td></td><td></td><td></td><td>FAC species 35 X 3 = 10</td><td>5</td></t<>					FAC species 35 X 3 = 10	5
5.       Kosa multinora       2       FACU         6.	4. Acer platanoides			UPL		
0.	5. Rosa multiflora	2		FACU		
7.	6.				UPL species <u>30</u> X 5 = <u>15</u>	0
					Column Totals: 177 (A) 47	9 (B)
Herb Stratum       (Plot size: 5')         1. Cyperus squarosus       22       Y       OBL         2. Symphyotrichum novi-belgii       20       Y       FACW         3. Acalypha virginica       15       Y       FACW         4. Pilea pumila       12       FACW         5. Leersia oryzoides       9       OBL         6. Impatiens capensis       5       FACW         7. Juncus effusus       5       OBL         8. Symphotrichum novae-angliae       2       FACW         9. Persicaria hydropiper       2       OBL         10. Ageratina altissima       1       FACU         11. Solidago canadensis       1       FACW         9. ersicaria hydropiper       2       OBL         1. Solidago canadensis       1       FACU         1	··		- Total Ca			
Herb Stratum       (Plot size:5')         1. Cyperus squarrosus       22       Y       OBL         2. Symphyotrichum novi-belgii       20       Y       FACW         3. Acalypha virginica       15       Y       FACW         4. Pilea pumila       12       FACW         5. Leersia oryzoides       9       OBL         6. Impatiens capensis       5       OBL         7. Juncus effusus       5       OBL         8. Symphotrichum novae-angliae       2       FACW         9. Persicaria hydropiper       2       OBL         10. Ageratina altissima       1       FACU         11. Solidago canadensis       1       FACW         95       = Total Cover       Hydrophytic Vegetation 1         4		- 57		vei		
1. Cyperus squarrosus       22       Y       OBL         2. Symphyotrichum novi-belgii       20       Y       FACW         3. Acalypha virginica       15       Y       FACW         4. Pilea pumila       12       FACW         5. Leersia oryzoides       9       OBL         6. Impatiens capensis       5       FACW         7. Juncus effusus       5       OBL         8. Symphotrichum novae-angliae       2       FACW         9. Persicaria hydropiper       2       OBL         11. Solidago canadensis       1       FACW         12. Acer rubrum       1       FACW         9       95       = Total Cover					Prevalence Index = $B/A = 2$ .	71
1. Cyperius squartosus       22       1       OBL         2. Symphyotrichum novi-belgii       20       Y       FACW         3. Acalypha virginica       15       Y       FACW         4. Pilea purila       12       FACW         5. Leersia oryzoides       9       OBL         6. Impatiens capensis       5       FACW         7. Juncus effusus       5       OBL         8. Symphotrichum novae-angliae       2       FACW         9. Persicaria hydropiper       2       OBL         10. Ageratina altissima       1       FACU         11. Solidago canadensis       1       FACU         12. Acer rubrum       1       FACW         95       = Total Cover       Hydrophytic Vegetation         Woody Vine Stratum       (Plot size:)					Hydrophytic Vegetation Indicators:	
2.       Symphydinduitin Hovebegin       20       1       1 RAW         3.       Acalypha virginica       15       Y       FACU         4.       Pilea pumila       12       FACW         5.       Leersia oryzoides       9       OBL         6.       Impatiens capensis       5       OBL         7.       Juncus effusus       5       OBL         8.       Symphotrichum novae-angliae       2       FACW         9.       Persicaria hydropiper       2       OBL         10.       Ageratina altissima       1       FACU         11.       Solidago canadensis       1       FACU         12.       Acer rubrum       1       FACU         95       = Total Cover       Hydrophytic         Woody Vine Stratum       (Plot size:)	1. Cyperus squarrosus			OBL		
3. Acarypina wighta       13       1       1 Acc         4. Pilea pumila       12       FACW         5. Leersia oryzoides       9       OBL         6. Impatiens capensis       5       FACW         7. Juncus effusus       5       OBL         8. Symphotrichum novae-angliae       2       FACW         9. Persicaria hydropiper       2       OBL         10. Ageratina altissima       1       FACU         11. Solidago canadensis       1       FACW         12. Acer rubrum       1       FACW         95       = Total Cover       Hydrophytic Vies X         Woody Vine Stratum       (Plot size:)	2. Symphyotrichum novi-belgii	20	Y	FACW		
4.       Pilea pumila       12       FACW         5.       Leersia oryzoides       9       OBL         6.       Impatiens capensis       5       FACW         7.       Juncus effusus       5       OBL         8.       Symphotrichum novae-angliae       2       FACW         9.       Persicaria hydropiper       2       OBL         10.       Ageratina altissima       1       FACU         11.       Solidago canadensis       1       FACU         12.       Acer rubrum       1       FACU         95       = Total Cover       Hydrophytic         Woody Vine Stratum       (Plot size:)	3. Acalypha virginica	15	Y	FACU	X Dominance Test is > 50%	
5.       Leersia oryzoides       9       OBL         6.       Impatiens capensis       5       FACW         7.       Juncus effusus       5       OBL         8.       Symphotrichum novae-angliae       2       FACW         9.       Persicaria hydropiper       2       OBL         10.       Ageratina altissima       1       FACU         11.       Solidago canadensis       1       FACW         12.       Acer rubrum       1       FACW         95       = Total Cover       Hydrophytic         Woody Vine Stratum       (Plot size:)		12			X Prevalence Test is $\leq 3.0^1$	
6.       Impatiens capensis       5       FACW         6.       Impatiens capensis       5       GBL         7.       Juncus effusus       5       OBL         8.       Symphotrichum novae-angliae       2       FACW         9.       Persicaria hydropiper       2       OBL         10.       Ageratina altissima       1       FACU         11.       Solidago canadensis       1       FACU         12.       Acer rubrum       1       FACW         95       = Total Cover       Hydrophytic         Woody Vine Stratum       (Plot size:)	· ·				Morphological Adaptations <sup>1</sup> (Provide s	upporting
0.       Impatents capterists       -5					data in Remarks or on a separate she	et)
8. Symphotrichum novae-angliae       2       FACW         9. Persicaria hydropiper       2       OBL         10. Ageratina altissima       1       FACU         11. Solidago canadensis       1       FACU         12. Acer rubrum       1       FACW         95       = Total Cover       Hydrophytic         Woody Vine Stratum       (Plot size:)						,
9. Persicaria hydropiper       2       OBL <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         10. Ageratina altissima       1       FACU         11. Solidago canadensis       1       FACU         12. Acer rubrum       1       FACW         95       = Total Cover       Hydrophytic         Woody Vine Stratum       (Plot size:)					Problematic Hydrophytic Vegetation (	Explain)
10. Ageratina altissima       1       FACU         11. Solidago canadensis       1       FACU         12. Acer rubrum       1       FACW         95       = Total Cover         Woody Vine Stratum       (Plot size:)          1	8. Symphotrichum novae-angliae	2		FACW	1	
10. Ageratina altissima       1       FACU         11. Solidago canadensis       1       FACU         12. Acer rubrum       1       FACW         95       = Total Cover       Hydrophytic         Vegetation       Present?       Yes         1.	9. Persicaria hydropiper	2		OBL		
11. Solidago canadensis       1       FACU         12. Acer rubrum       1       FACW         95       = Total Cover         Woody Vine Stratum       (Plot size:)          1	10. Ageratina altissima	1		FACU	be present, unless disturbed or problemati	С.
12. Acer rubrum       1       FACW         95       = Total Cover         Woody Vine Stratum       (Plot size:)         1.		1		FACU		
95       = Total Cover         Woody Vine Stratum       (Plot size:)         1.          2.          3.						
Woody Vine Stratum       (Plot size:)         1.          2.          3.          4.			- Total Ca			
1.		95		vei		
1.						
2.						
2.	1			<u> </u>		
4 = Total Cover	2				Present? res <u>x</u> No	
4 = Total Cover	3.					
= Total Cover						
			Total Co			
Remarks: (Include photo numbers here or on a separate sheet )				vei		
Remarks: (Include photo numbers here or on a separate sheet )						
Tremarks. (include photo numbers here of on a separate sheet.)	Remarks: (Include photo numbers here or on a separate	sheet.)			·	

SO	IL
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Profile Deso Depth	cription: (Describe Matrix	to the dep	th needed to docui Re	ment the in edox Featu		r confirm	the absence	e of indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-4	10YR 3/1	90	7.5YR 5/6	5			Silt loam	Saturated		
			10YR 5/2	5						
4-7	10YR 3/1	60	10YR 4/2	40			Silt loam	Saturated		
7-13	Gley 1 3N	100					Stony sand	Saturated		
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RN	=Reduced Matrix, C	S=Covered	d or Coate	d Sand Gi	rains. <sup>2</sup>	Location: PL=Po	ore Lining, M=Matrix.	
Histic Black Hydrog Stratifi Deplet Thick Sandy Sandy Sandy Dark S	ol (A1) Epipedon (A2) Histic (A3) gen Sulfide (A4) ied Layers (A5) ted Below Dark Surf Dark Surface (A12) Mucky Mineral (S1 Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) <b>(LRR F</b>	) R, MLRA 14	Polyvalue Bel MLRA 149 Thin Dark Sur Loamy Mucky X Loamy Gleyer Depleted Mat Redox Dark S Depleted Darl Redox Depres	PB) rface (S9) ( v Mineral (F d Matrix (F3) rix (F3) Gurface (F6 k Surface ( ssions (F8)	LRR R, M 21) (LRR K 2) ) F7)	LRA 149E (, L)	2 cm Coas 5 cm Dark Poly Thin Iron- Pied Mes Red Very Othe	n Muck (A10) <b>(LR</b> st Prairie Redox n Mucky Peat or la sufface (S7) <b>(L</b> value Below Sur Dark Surface (S Mangenese Mas mont Floodplain ic Spodic (TA6) <b>(</b> Parent Material of Shallow Dark S er (Explain in Rer	face (S8) <b>(LRR K, L)</b> 9) <b>(LRR K, L)</b> sses (F12) <b>(LRR K, L,</b> Soils (F19) <b>(MLRA 14</b> <b>MLRA 144A, 145, 149</b> (TF2) urface (TF12)	R) 9B)
Restrictive	Layer (if observed	):								
Type:										
Depth (ir	nches):				Hyd	ric Soil P	resent?	Yes _	<u>X</u> No	
Remarks:										

Project/Site: 1-80 Reconstruction	City/County: Monroe Sampling Date: Sep 25, 2013							
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-06 DP2							
Investigator(s): LMM, KLL	Section, Township, Range: <u>Stroud Twp &amp; E Stroudsburg Borough</u>							
Landform (hillslope, terrace, etc.) Terrace Loc	al relief (concave, convex, none): Concave							
Slope (%): Lat: 40° 59' 10.613" N	Long: 75° 13' 33.907" W Datum: NAD83							
Soil Map Unit Name: Po – Pope silt loam								
Are climatic / hydrologic conditions on the site typical for this time of year?								
Are Vegetation, Soil, or Hydrologysignificantly disturbed								
Are Vegetation, Soil, or Hydrologynaturally problematic?								
	npling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area							
	within a Wetland? Yes NoX							
Hydric Soil Present?     Yes     No     X	If yes, optional Wetland Site ID:							
Wetland Hydrology Present?     Yes NoX       Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)							
Surface Water (A1)Water-Stained Leaves (B9)Drainage Patterns (B10)High Water Table (A2)Aquatic Fauna (B13)Moss Trim Lines (B16)Saturation (A3)Marl Deposits (B15)Dry-Season Water Table (C2)Water Marks (B1)Hydrogen Sulfide Odor (C1)Crayfish Burrows (C8)Sediment Deposits (B2)Oxidized Rhizospheres on Living Roots (C3)Saturation Visible on Aerial Imagery (C9)Drift Deposits (B3)Presence of Reduced Iron (C4)Stunted or Stressed Plants (D1)Algal Mat or Crust (B4)Recent Iron Reduction in Tilled Soils (C6)Geomorphic Position (D2)Inundation Visible on Aerial Imagery (B7)Other (Explain in Remarks)Microtopographic Relief (D4)Sparsely Vegetated Concave Surface (B8)FAC-Neutral Test (D5)								
Field Observations:								
Surface Water Present? Yes No X Depth (inches):								
Water Table Present?         Yes         No         X         Depth (inches):	Wetland Hydrology Present? Yes No X							
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:							
Remarks:								

Sampling Point: W-3-06 DP2

	Absolute	Dominant	Indiantar	Dominance Test worksheet:	-
Tree Stratum (Plot size: 30')		Species?	Status		
1. Acer platanoides	40	Y	UPL	Number of Dominant Species	
	40	<u> </u>	FAC		(A)
					( )
3				Total Number of Dominant	
4					(B)
5					. ,
6				Percent of Dominant Species	
7					(A/B)
	80	= Total Co	ver		
				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: 15')				Total % Cover of: Multiply by:	_
1. Acer platanoides	50	Y	UPL	OBL species x 1 =	
2. Malus floribunda	45	Y	UPL		
3. Taxus baxxata	30	<u>.</u>	UPL	FACW species X 2 =	-
4. Rosa multiflora	12		FACU	FAC species <u>55</u> X 3 = <u>165</u>	-
				FACU species 18 X 4 = 72	
5. Carya cordiformis	10		FAC	UPL species 165 X 5 = 825	-
6					-
7				Column Totals: <u>238</u> (A) <u>1062</u>	_ (B)
	147	= Total Co	ver		
				Prevalence Index = $B/A = 4.46$	
Herb Stratum (Plot size: 5')					
1. Geum aleppicum	5	Y	FAC	Hydrophytic Vegetation Indicators:	
2. Ageratina altissima	3	Y	FACU	Rapid Test for Hydrophytic Vegetation	
3. Rubus species	1		FACU	Dominance Test is > 50%	
1 Allium canadonso	1		FACU	Prevalence Test is $\leq 3.0^1$	
5 Posa multiflora	1		FACU	Morphological Adaptations <sup>1</sup> (Provide suppo	ortina
			TACU	data in Remarks or on a separate sheet)	ining
6			<u> </u>		-:)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Expla	ain)
8					
9				<sup>1</sup> Indicators of hydric soil and wetland hydrology be present, unless disturbed or problematic.	must
10					
11					
12					
	11	= Total Co	ver		
Woody Vine Stratum (Plot size: )				Hydrophytic	
1.				Vegetation	
2.				Present? Yes No X	(
3 4.					
4			<u> </u>		
		= Total Co	ver		
Remarks: (Include photo numbers here or on a separate	sheet.)				
	,				

SOIL	
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Profile Deso Depth	cription: (Describe Matrix	to the dep	<b>th needed to docur</b> Re	<b>nent the i</b> dox Featu		r confirm	the absence	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Ren	narks
0-3	10YR 3/2	70	10YR 4/3	30			Silt loam	Moist	
3-7	7.5YR 4/3	90					Silt loam	Moist	
7-10	7.5YR 3/2	100					Si cl loam	Moist	
10-13	7.5YR 4/1+	80	7.5YR 5/3	10			Si cl loam	Moist	
			7.5YR 5/6	5					
<sup>1</sup> Type: C=C	oncentration, D=Dep	pletion, RM	=Reduced Matrix, C	S=Covered	d or Coate	d Sand Gi	ains. <sup>2</sup>	Location: PL=Pore L	ining, M=Matrix.
Hydric Soil Indicators:       Polyvalue Below Surface (S)         Histosol (A1)       Polyvalue Below Surface (S)         Histic Epipedon (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LF         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)         Sandy Redox (S5)       Stripped Matrix (S6)         Dark Surface (S7) (LRR R, MLRA 149B) <sup>3</sup> Indicators of Hydrophytic vegetation and wetland hydrology must be present					LRR R, M 21) (LRR K 2) ) F7)	LRA 149E (, L)	2 cm Coas 5 cm Dark Poly Thin Iron- Pied Mesi Red Very Othe	ors for Problematic Muck (A10) (LRR K St Prairie Redox (A16 Mucky Peat or Peat Surface (S7) (LRR F value Below Surface Dark Surface (S9) (L Mangenese Masses mont Floodplain Soils c Spodic (TA6) (MLR Parent Material (TF2 Shallow Dark Surface or (Explain in Remarks	, L, MLRA 149B) ) (LRR K, L, R) (S3) (LRR K, L, R) (, L) (S8) (LRR K, L) (RR K, L) (F12) (LRR K, L, R) (F12) (MLRA 149B (A 144A, 145, 149B) ) e (TF12)
Restrictive	Layer (if observed)	):							
Type:								X	N Y
Depth (ir	nches):				Hyd	ric Soil P	resent?	Yes	No <u>X</u>
Remarks:									

Project/Site: 1-80 Reconstruction	City/County: Monroe Sampling Date: Sep 25, 2013							
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-07 DI							
Investigator(s): LMM, KLL	Section, Township, Range: Stroud Twp & E Stroudsburg Borough							
Landform (hillslope, terrace, etc.) Hillslope Loc	al relief (concave, convex, none): <u>Concave</u>							
Slope (%): Lat: 40° 59' 8.657" N	Long: 75° 13' 33.483" W Datum: NAD83							
Soil Map Unit Name: Cy - CUT AND FILL LAND	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 Hydrologysignificantly disturbed	? Are "Normal Circumstances" present? Yes X No							
Are Vegetation, Soil, or Hydrologynaturally problematic?	? (If needed, explain any answers in Remarks.)							
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area							
Hydric Soil Present? Yes X No	within a Wetland? Yes X No							
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: PEM							
Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)							
Drift Deposits (B3)       Presence of Reduce         Algal Mat or Crust (B4)       Recent Iron Reducti         Iron Deposits (B5)       Thin Muck Surface (         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Resence of Reduce)         Sparsely Vegetated Concave Surface (B8)       Presence of Reduce	) 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)							
Field Observations:								
Surface Water Present? Yes X No X Depth (inches): 1/2"	[							
Water Table Present?         Yes         X         No         Depth (inches):         8"	Wetland Hydrology Present? Yes X No							
Saturation Present? Yes X No Depth (inches): 0" (includes capillary fringe)								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:								
Spring seep								

Sampling Point: W-3-07 DP1

	Abaaluta	Deminant	lun alia ata a	Dominance Test worksheet:
Tree Stratum (Plot size: 30')	Absolute	Dominant Species?		
	% Cover	Species	Status	Number of Dominant Species
				That Are OBL, FACW, or FAC: 2 (A)
2			<u> </u>	
3				
4.				Total Number of Dominant
				Species Across All Strata: (B)
6		<u> </u>	<u> </u>	Percent of Dominant Species
7	·			That Are OBL, FACW, or FAC: 50 (A/B)
		= Total Co	ver	
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)				Total % Cover of: Multiply by:
1. Lindera benzoin	3	Y	FACW	OBL species 55 x 1 = 55
2.				FACW species 38 X 2 = 76
				FAC species <u>15</u> X 3 = <u>45</u>
			·	FACU species 64 X 4 = 256
5			. <u> </u>	UPL species X 5 =
6				
7				Column Totals: <u>172</u> (A) <u>432</u> (B)
	3	= Total Co	ver	
				Brouplenes Index D/A 2.51
Herb Stratum (Plot size: 5' )				Prevalence Index = B/A =
1. Leersia oryzoides	50	Y	OBL	Hydrophytic Vegetation Indicators:
	40	<u> </u>	FACU	Rapid Test for Hydrophytic Vegetation
2. Fallopia japonica		<u> </u>		Dominance Test is > 50%
3. Impatiens capensis	20		FACW	
4. Symphotrichum novae-angliae	15		FACW	<u>X</u> Prevalence Test is $\leq 3.0^1$
5. Panicum virgatum	15		FAC	Morphological Adaptations <sup>1</sup> (Provide supporting
6. Myosotis scorpiodes	5		OBL	data in Remarks or on a separate sheet)
7. Ageratina altissima	2		FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.			<u> </u>	
0			·	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11			<u> </u>	
12			. <u> </u>	
	147	= Total Co	ver	
Woody Vine Stratum (Plot size: 5')				Hydrophytic
1. Vitis labrusca	22	Y	FACU	Vegetation
2.				Present? Yes X No
		<u> </u>	<u> </u>	
3				
4			. <u> </u>	
	22	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	shoot )			1
Remarks: (include photo numbers here of on a separate	sneet.)			

Profile Desc Depth	cription: (Describe Matrix	to the dep	th needed to docu	<b>ment the i</b> edox Featu		r confirm	the absence	e of indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remark	S
0-2	7.5YR 2.5/1	95					Loam	Saturated	Saturated	
2-8	7.5YR 4/1	90					Sand	Saturated		
8-14	7.5YR 3/1	80	Gley 1 3N	20			Sandy	Saturated, sulfi	dic odor	
			0.09 1 0.1							
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM	=Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. 2	Location: PL=Po	ore Lining	g, M=Matrix.
Hydric Soil Indicators:       Polyvalue Below Surface (S         Histosol (A1)       Polyvalue Below Surface (S         Histic Epipedon (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LR         X       Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       X       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)         Sandy Redox (S5)       X         X       Stripped Matrix (S6)         Dark Surface (S7) (LRR R, MLRA 149B) <sup>3</sup> Indicators of Hydrophytic vegetation and wetland hydrology must be present					(LRR R, M 51) (LRR K 2) 5) F7)	Coast Prairie Redox (A16) (LRR K, L, 5 cm Mucky Peat or Peat (S3) (LRR K, Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, Thin Dark Surface (S9) (LRR K, L) Iron-Mangenese Masses (F12) (LRR K Piedmont Floodplain Soils (F19) (MLR Mesic Spodic (TA6) (MLRA 144A, 145 Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			MLRA 149B) RR K, L, R) ) (LRR K, L, R) ) (LRR K, L) 2) (LRR K, L, R) 19) (MLRA 149B) 44A, 145, 149B)	
Restrictive	Layer (if observed)	):								
Type:										
Depth (in	iches):				Hyd	Hydric Soil Present? Yes X No				
Remarks:										

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 25, 2013					
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-09 DP1					
Investigator(s): Mike Landis, David Jacobs						
Landform (hillslope, terrace, etc.) Depression Loc	cal relief (concave, convex, none): Concave					
Slope (%): 0 Lat: 40° 59' 19.222" N	Long: 75° 14' 13.935" W Datum: NAD 83					
Soil Map Unit Name: Wyoming gravelly sandy loam (WyB, WyC, WyE)	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 Hydrologysignificantly disturbed	Are "Normal Circumstances" present? Yes X No					
Are Vegetation, Soil, or Hydrologynaturally problematic?	? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sar	npling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area					
Hydric Soil Present?     Yes X     No	within a Wetland? Yes X No					
Wetland Hydrology Present?     Yes X     No	If yes, optional Wetland Site ID: PEM/SS					
Remarks: Sample area wetland; PEM/SS						
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that apply)         Surface Water (A1)       Water-Stained Leav         High Water Table (A2)       Aquatic Fauna (B13         X       Saturation (A3)       Marl Deposits (B15)         Water Marks (B1)       Hydrogen Sulfide O         Sediment Deposits (B2)       X       Oxidized Rhizosphe         Drift Deposits (B3)       Presence of Reduce         Algal Mat or Crust (B4)       Recent Iron Reducti         Iron Deposits (B5)       Thin Muck Surface (B3)         Sparsely Vegetated Concave Surface (B8)       Other (Explain in Reduction Visible on Aerial Imagery (B7)	a)       Moss Trim Lines (B16)         b)       Dry-Season Water Table (C2)         dor (C1)       Crayfish Burrows (C8)         beres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         bed Iron (C4)       Stunted or Stressed Plants (D1)         ion in Tilled Soils (C6)       X         (C7)       Shallow Aquitard (D3)					
Field Observations:						
Surface Water Present? Yes <u>No X</u> Depth (inches):						
Water Table Present?         Yes         No         X         Depth (inches):	Wetland Hydrology Present? Yes X No					
Saturation Present? Yes <u>X</u> No <u>Depth</u> (inches): (includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:					
Remarks:						

Sampling Point:	W-3-09 DP1

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft )	% Cover	Species?	Status	
1. Acer rubrum	5	Y	FAC	Number of Dominant Species
2				That Are OBL, FACW, or FAC: <u>3</u> (A)
3				Total Number of Daminant
4				Total Number of Dominant Species Across All Strata: 4 (B)
5				
6.				Percent of Dominant Species
7.				That Are OBL, FACW, or FAC: 75 (A/B)
	5	= Total Co	ver	
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 30 ft )				Total % Cover of: Multiply by:
1. Lindera benzoin	10	Y	FACW	OBL species _0 x 1 = _0
2. Carpinus caroliniana	2	N	FAC	FACW species 70 $X 2 = 140$
3. Rosa multiflora	10	Y	FACU	
4.				FAC species _7 X 3 = _21
5.				FACU species <u>10</u> X 4 = <u>40</u>
6.				UPL species 0 X 5 = 0
7.				Column Totals: 87 (A) 201 (B)
	22	= Total Co	ver	
		- 1010100		
Herb Stratum (Plot size: 5 ft )				Prevalence Index = B/A =
1. Impatiens capensis	60	Y	FACW	Hydrophytic Vegetation Indicators:
		-		Rapid Test for Hydrophytic Vegetation
2				x Dominance Test is > 50%
				x Prevalence Test is $\leq 3.0^1$
				Morphological Adaptations <sup>1</sup> (Provide supporting
				data in Remarks or on a separate sheet)
6				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7				
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12				
	60	= Total Co	ver	
Woody Vine Stratum (Plot size:)				Hydrophytic
1				Vegetation Present? Yes X No
2				Present? Yes X No
3				
4				
	0	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			

SOIL
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	ription: (Describe Matrix		h needed to docu	ment the in edox Featur		r confirm	the absence	of indicators.)		
Depth (inches)	Color (moist)	%	Color (moist)	edox Featur %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remar	ks
0-6	10YR 3/3	100					SAND			
6-16	10YR 4/2	85	10YR 5/3	15	CS	М	SAND			
0 10	1011( 4/2		10111 0/0							
				·						
				·						
ype: C=Co	oncentration, D=De	epletion, RM=	=Reduced Matrix, C	S=Covered	l or Coate	d Sand Gra	ains. <sup>2</sup> L	ocation: PL=Po	ore Linir	ng, M=Matrix.
-	Indicators:							ors for Problem	-	
Histos			Polyvalue Be		(S8) <b>(LR</b>	R R,		Muck (A10) (LR		
	Epipedon (A2)		MLRA 149					t Prairie Redox (		
	Histic (A3)		Thin Dark Su					Mucky Peat or F		
·	gen Sulfide (A4)		Loamy Mucky			ί, L)		Surface (S7) (LF		
	ed Layers (A5)		Loamy Gleye		2)			alue Below Surf		
	ed Below Dark Sur		Depleted Mat					Dark Surface (S		
	Dark Surface (A12)		Redox Dark S					Mangenese Mas		
	Mucky Mineral (S1		Depleted Dar		=7)			nont Floodplain		
Sandy	Gleyed Matrix (S4)	)	Redox Depre	ssions (F8)			Mesi	c Spodic (TA6) <b>(</b> I	MLRA	144A, 145, 149
X Sandy	Redox (S5)						Red	Parent Material (	TF2)	
Strippe	ed Matrix (S6)						Very	Shallow Dark Su	urface (	TF12)
Dark S	Surface (S7) <b>(LRR F</b>	R, MLRA 149	9B)				Othe	r (Explain in Ren	narks)	
ndicators of	f Hydrophytic veget	tation and we	etland hydrology mu	ust be prese	ent, unless	disturbed	or problemati	с.		
estrictive I	Layer (if observed	):								
Type:					Llvd	ric Soil Pr	acant?	Yes	х	No
Depth (in	ches):				iiyu		esent:		~	
emarks:										

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Sep 25, 2013
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-09 DP2
Investigator(s): Mike Landis, David Jacobs	Section, Township, Range: <u>Stroud Twp &amp; E Stroudsburg Borough</u>
Landform (hillslope, terrace, etc.) slope Loc	al relief (concave, convex, none): <u>none</u>
Slope (%):3 Lat: <u>40° 59' 19.222" N</u>	Long: 75° 14' 13.935" W Datum: NAD 83
Soil Map Unit Name: Wyoming gravelly sandy loam (WyB, WyC, WyE)	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 Hydrologysignificantly disturbed?	? Are "Normal Circumstances" present? Yes x No
Are Vegetation, Soil, or Hydrologynaturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No _X	Is the Sampled Area
Hydric Soil Present? Yes No X	within a Wetland? Yes NoX
Wetland Hydrology Present? Yes No X	If yes, optional Wetland Site ID: UPL
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Drift Deposits (B3)       Presence of Reduce         Algal Mat or Crust (B4)       Recent Iron Reduction         Iron Deposits (B5)       Thin Muck Surface (Interpretent Concave Surface (B8)         Sparsely Vegetated Concave Surface (B8)       Other (Explain in Reduction)	Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) d Iron (C4) on in Tilled Soils (C6) C7) 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)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes <u>No X</u> Depth (inches):	Wetland Hydrology Present? Yes No X
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	

# **VEGETATION -** Use scientific names of plants.

Sampling Point: W-3-09 DP2

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft )	% Cover	Species?	Status	
1. Carya ovata	10	Y	FACU	Number of Dominant Species
	40	<u> </u>	FACU	That Are OBL, FACW, or FAC: 3 (A)
Acer saccharum     Acer saccharum     Acer saccharum     Acer saccharum	5	<u> </u>		
	5	<u> </u>	FACU	Total Number of Dominant
4				Species Across All Strata: 8 (B)
5				· · · · · · · · · · · · · · · · · · ·
6				Percent of Dominant Species
7.				That Are OBL, FACW, or FAC: 38 (A/B)
	25	= Total Co	ver	
		- 10141 00		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 30 ft )				Total % Cover of: Multiply by:
	-	N	540	
1. Carpinus caroliniana	5	<u>Y</u>	FAC	OBL species 0 x 1 = 0
2. Lindera benzoin	10	Y	FACW	FACW species 10 X 2 = 20
3				FAC species 30 X 3 = 90
4				
				FACU species <u>35</u> X 4 = <u>140</u>
				UPL species 0 X 5 = 0
				Column Totals: 75 (A) 250 (B)
7				(D)
	15	= Total Co	ver	
				Prevalence Index = $B/A = 3.33$
Herb Stratum (Plot size: 5 ft )				
1. Urtica dioica	15	Y	FAC	Hydrophytic Vegetation Indicators:
2 Barthanagiagua guinguafalia	10	Y	FACU	Rapid Test for Hydrophytic Vegetation
3. Toxicodendron radicans	10	<u> </u>	FAC	Dominance Test is > 50%
	10	<u> </u>	FAC	Prevalence Test is $\leq 3.0^{1}$
4				
5				Morphological Adaptations <sup>1</sup> (Provide supporting
6				data in Remarks or on a separate sheet)
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
			· <u> </u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
10				
11				
12				
	35	= Total Co	ver	
				Hydrophytic
Woody Vine Stratum (Plot size:				Ilyalopilyac
Woody Vine Stratum (Plot size:)				
1				Vegetation
1				
1				Vegetation
1.       2.				Vegetation
1.       2.       3.				Vegetation
1.       2.       3.	0	= Total Co		Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation
1.       2.       3.       4.	0			Vegetation

Profile Desc	ription: (Describe	to the depth i	needed to documen	t the indicator	or confirm t	the absence	of indicators.)		
Depth	Matrix			Features	. 2	<b>-</b> /	-		
(inches)	Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Ren	narks	
0-4	10YR 2/2	100				Sa Lo			
4-14	10YR 3/4	100				Sand			
		·							<u> </u>
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=R	educed Matrix, CS=C	overed or Coate	ed Sand Gra	ains. <sup>2</sup> l	Location: PL=Pore L	ining, M=Mat	rix.
Hydric Soil	Indicators:					Indicate	ors for Problematic	Hydric Soils	<sup>3</sup> :
Histos			Polyvalue Below S	Surface (S8) (LR	RR,		Muck (A10) (LRR K	•	
	Epipedon (A2)		MLRA 149B)				t Prairie Redox (A16		
	Histic (A3)		Thin Dark Surface	(S9) (LRR R. N	ILRA 149B		Mucky Peat or Peat		
	gen Sulfide (A4)		Loamy Mucky Mir				Surface (S7) (LRR I		_, ,
	ed Layers (A5)		Loamy Gleyed Ma		<b>(, ⊑)</b>		value Below Surface		1
									L)
	ed Below Dark Surf		Depleted Matrix (F				Dark Surface (S9) <b>(L</b>		
	Dark Surface (A12)	、	Redox Dark Surfa	. ,			Mangenese Masses		
	Mucky Mineral (S1		Depleted Dark Su				mont Floodplain Soils		
	Gleyed Matrix (S4)	. <u> </u>	Redox Depression	ns (F8)			c Spodic (TA6) <b>(MLF</b>		, 149B)
	Redox (S5)						Parent Material (TF2		
Strippe	ed Matrix (S6)					Very	Shallow Dark Surface	e (TF12)	
Dark S	Surface (S7) (LRR R	R, MLRA 149B	)			Othe	r (Explain in Remark	s)	
<sup>3</sup> Indicators o	f Hydrophytic veget	ation and wetla	and hydrology must b	e present, unles	s disturbed	or problemat	c.		
	, , , , , ,		, 0,	1 /					
Restrictive	Layer (if observed)	):							
Type:									
Depth (in	ches).		_	Hyd	dric Soil Pre	esent?	Yes	<u>No</u>	Х
Doput (iii			_						
Remarks:									

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 1-80 Reconstruction	City/County: Monroe Sampling Date: Sep 17, 2013
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-10 DP1
Investigator(s): EEC/KLL	Section, Township, Range: Stroud Twp & E Stroudsburg Borough
Landform (hillslope, terrace, etc.) hillslope Loc	cal relief (concave, convex, none): Concave
Slope (%):0 Lat: <u>40° 59' 23.714" N</u>	Long: 75° 14' 35.915" W Datum: NAD 83
Soil Map Unit Name: Volusia gravelly silt loam (VoB)	
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 X significantly disturbed	
Are Vegetation, Soil, or Hydrologynaturally problematic?	? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sar	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: PFO/EM
Remarks: Maintained residential property. Two frogs observed.	
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)           X         Surface Water (A1)         X         Water-Stained Leav	es (B9) X Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13	Moss Trim Lines (B16)
X         Saturation (A3)         Marl Deposits (B15)           Water Marks (B1)         Hydrogen Sulfide O	
Sediment Deposits (B2) X Oxidized Rhizosphe	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)         Presence of Reduce           Algal Mat or Crust (B4)         Recent Iron Reduction	ed Iron (C4) Stunted or Stressed Plants (D1) ion in Tilled Soils (C6) X Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (	(C7) Shallow Aquitard (D3)
Imundation Visible on Aerial Imagery (B7) Conter (Explain in Responsely Vegetated Concave Surface (B8)	emarks) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inches):	<u>1″</u>
Water Table Present?     Yes     No     X     Depth (inches):	Wetland Hydrology Present? Yes X No
Saturation Present? Yes X No Depth (inches): (includes capillary fringe)	<u> </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro	aviaus inspections), if available:
beschbe Recorded Data (Stream gauge, monitoring weil, achai photos, ph	
Remarks: Spring seep/spring box. Water channelized by rock walls – throug	ab center of wetland and along edge closest to roadway

#### **VEGETATION -** Use scientific names of plants.

Sampling Point: W-3-10 DP1

				Dominance Test worksheet:
	Absolute	Dominant		Dominance rest worksheet.
Tree Stratum (Plot size: 30 ft )	% Cover	Species?	Status	
1. Magnolia virginiana	30	Y	FACW	Number of Dominant Species
2. Tsuga canadensis	25	Y	FACU	That Are OBL, FACW, or FAC: 5 (A)
3				Total Number of Dominant
4				Species Across All Strata: 9 (B)
5				
				Percent of Dominant Species
7				That Are OBL, FACW, or FAC: <u>56</u> (A/B)
	55	= Total Co	ver	
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 30 ft )				Total % Cover of: Multiply by:
	10	V	FACU	
1. Lonicera morrowii	10	Y	FACU	OBL species <u>60</u> x 1 = <u>60</u>
2. Berberis thunbergii	10	Y	FACU	FACW species 127 X 2 = 254
3				
				· <u> </u>
				FACU species 60 X 4 = 240
5				UPL species $0   X5 = 0$
6				
7				Column Totals: <u>284</u> (A) <u>665</u> (B)
	20	= Total Co	vor	
	20		vei	
				Prevalence Index = $B/A = 2.34$
Herb Stratum (Plot size: 5 ft )				Hudrophytic Verstation Indicators
1. Poa palustris	40	Y	FACW	Hydrophytic Vegetation Indicators:
2. Myosotis laxa	30	Y	OBL	Rapid Test for Hydrophytic Vegetation
				x Dominance Test is > 50%
3. Cardamine pensylvanica	30	Y	FACW	
4. Microstegium vimineum	30	Y	FAC	<u>x</u> Prevalence Test is $\leq 3.0^1$
5. Cyperus strigosus	22		FACW	Morphological Adaptations <sup>1</sup> (Provide supporting
6. Eleocharis obtuse	20		OBL	data in Remarks or on a separate sheet)
				Droblemetic Lludrenbytic Vegetation <sup>1</sup> (Evaluin)
7. Prunella vulgaris	7		FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8. Lemna minor	5		OBL	
9. Cyperus diandrus	5		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
10. Cyperus bipartitus	5		FACW	be present, unless disturbed or problematic.
			TACW	
11				
12				
	194	= Total Co	ver	
		- 1010100		
Woody Vine Stratum (Plot size: 5')				Hydrophytic
1. Vitis labrusca	15	Y	FACU	Vegetation
2.				Present? Yes X No
3				
4				
	15	= Total Co	ver	
		- 1010100		
Remarks: (Include photo numbers here or on a separate	sheet.)			
	,			

Profile Desc Depth	cription: (Describe	-	oth needed to docur Re	nent the in dox Feature				e of indicators.)	-
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
0-2	7.5YR 3/1	90					Silt loam	Organics, oxidiz	ed root channels
2-7	7.5YR 6/1	60	7.5YR 4/4	10			Silt loam	Saturated, some	e gravel
			7.5YR 3/1	25					
7-13	7.5YR 4/1	85	7.5YR 4/4	15			Silt loam	Saturated, grave	əl
		letion PM	I=Reduced Matrix, C		or Coate	d Sand G			re Lining, M=Matrix.
Black I Hydrog Stratifi Deplet Thick I Sandy Sandy Sandy Dark S Indicators of	ol (A1) Epipedon (A2) Histic (A3) gen Sulfide (A4) ed Layers (A5) ed Below Dark Surfa Dark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) <b>(LRR R</b> )	MLRA 14	Polyvalue Bel MLRA 149 X Thin Dark Sur Loamy Mucky Loamy Gleyed X Depleted Mate Redox Dark S Depleted Dark Redox Depres	B) face (S9) (L Mineral (F <sup>-</sup> d Matrix (F2 rix (F3) Surface (F6) < Surface (F6) sissions (F8)	.RR R, M I) (LRR F ) 7)	ILRA 149 (, L)	2 cm Coa 5 cm Dark Poly Thin Iron- Pied Red Very Othe	n Muck (A10) <b>(LR</b> st Prairie Redox ( n Mucky Peat or F Surface (S7) <b>(LF</b> value Below Surface (S8 Mangenese Mass mont Floodplain S ic Spodic (TA6) <b>(I</b> Parent Material ( shallow Dark Su er (Explain in Rem	ace (S8) <b>(LRR K, L)</b> 9) <b>(LRR K, L)</b> ses (F12) <b>(LRR K, L, R)</b> Soils (F19) <b>(MLRA 149B)</b> <b>MLRA 144A, 145, 149B)</b> TF2) urface (TF12)
Type: Depth (in					Hyd	ric Soil F	Present?	Yes	_X No
Remarks:									

Sampling Point: W-3-10 DP1

SOIL

#### WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 1-80 Reconstruction	City/County: Monroe Sampling Date: Sep 17, 2013
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-10 DP2
Investigator(s): EEC/KLL	Section, Township, Range: <u>Stroud Twp &amp; E Stroudsburg Borough</u>
Landform (hillslope, terrace, etc.) hillslope Loc	al relief (concave, convex, none): <u>Concave</u>
Slope (%):0 Lat: 40° 59' 23.714" N	Long: 75° 14' 35.915" W Datum: NAD 83
Soil Map Unit Name: Volusia gravelly silt loam (VoB)	NWI Classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation, Soil, or Hydrology _X_significantly disturbed	? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrologynaturally problematic?	
	npling point locations, transects, important features, etc.
Libertar hadia Manadatian Darasa (0	
Hydrophytic Vegetation Present? Yes <u>No X</u>	Is the Sampled Area within a Wetland? Yes NoX
Hydric Soil Present? Yes <u>No X</u>	If yes, optional Wetland Site ID:
Wetland Hydrology Present?         Yes         No         X	
Remarks: Area is mowed.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	
High Water Table (A2) Aquatic Fauna (B13)	
Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Oc	
	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	
	on in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (	,
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re Sparsely Vegetated Concave Surface (B8)	marks) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes <u>No X</u> Depth (inches):	Wetland Hydrology Present? Yes No X
Saturation Present? Yes <u>No X</u> Depth (inches):	Wetland Hydrology Present? Yes No X
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	

## **VEGETATION -** Use scientific names of plants.

Sampling Point: W-3-10 DP2

Tree Stratum       (Plot size:30 ft)       % Cover       Species?       Status         1.		Absolute	Dominant	Indicator	Dominance Test worksheet:		
1	Tree Stratum (Plot size: 30 ft )						
2					Number of Dominant Species		
3.					That Are OBL, FACW, or FAC:	0	(A)
4.							
5.					Total Number of Dominant		
6.					Species Across All Strata:	3	(B)
7.		·					
Sapling/Shrub Stratum       (Plot size:30 ft)         1.							
Sapling/Shrub Stratum       (Plot size:30 ft1         1.      2         2.      2         3.      2         3.      2         4.      2         5.      2         6.      2         7.      2         1.      2         8.      2         9.      2         1.       Misc grass species         2.       2.         1.       Misc grass species         5.       50         2.       Prevalence Index = B/A =         Wydrophytic Vegetation Indicators:	7				That Are OBL, FACW, or FAC:	0	(A/B)
Saping/Shrub Stratum       (Plot size:30 ft			= Total Co	ver			
1.							
2.					Total % Cover of:	Multiply by:	
2.	1				OBL species	< 1 =	
3.					FACW species	< 2 =	
4.	3						
5.						-	
6.	E					-	
7.					UPL species	< 5 =	
Herb Stratum       (Plot size:5 ft)         1. Misc grass species       50         2. Plantago lanceooata       40       Y       FACU         3. Trifolium purpureum       30       Y       FACU         4. Glechoma hederacea       25       Y       FACU         7. Traxacum officinale       7       FACU       Dominance Test is > 50%         9.       —       —       —       Dominance Test is > 50%         9.       —       —       —       Dominance Test is > 50%         9.       —       —       —       Dominance Test is > 50%         9.       —       —       —       Dominance Test is > 50%         9.       —       —       —       Prevalence Test is < 3.0 <sup>1</sup> 10.       —       —       —       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         11.       —       —       —       —       Problematic.         12.	7				Column Totals:	(A)	(B)
Herb Stratum (Plot size:5ft)       50       Prevalence Index = B/A =         2. Plantago lanceocata       40       Y       FACU         3. Trifolium purpureum       30       Y       FACU         4. Glechoma hederacea       25       Y       FACU         5. Taraxacum officinale       7       FACU       Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)         7.       FACU       Problematic Hydrophytic Vegetation '(Explain)         8.		·	- Total Co	ver			
Herb Stratum       (Plot size:5 tt)         1. Misc grass species       50         2. Plantago lanceocata       40       Y       FACU         3. Trifolium puppreum       30       Y       FACU         4. Glechoma hederacea       25       Y       FACU         5. Taraxacum officinale       7       FACU         6			= 10101 00	VOI			
1. Misc grass species       50         2. Plantago lanceooata       40       Y       FACU         3. Trifolium purpureum       30       Y       FACU         4. Glechoma hederacea       25       Y       FACU         5. Taraxacum officinale       7       FACU         6.       7       FACU         7.       7       FACU         8.       9       9         9.       9       9         10.       11       10         11.       152       = Total Cover         Woody Vine Stratum       (Plot size: 5')       )         1.	Herb Stratum (Plot size: 5 ft )				Prevalence Index = E	3/A =	
2. Plantago lanceooata       40       Y       FACU       Rapid Test for Hydrophytic Vegetation         3. Trifolium purpureum       30       Y       FACU       Dominance Test is > 50%         4. Glechoma hederacea       25       Y       FACU       Prevalence Test is \$ 3.0°         5. Taraxacum officinale       7       FACU       Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)         6.		50			Hydrophytic Vegetation Indicate	ors:	
2. Plaintage failed out and the device of a separate sheet.)       40       1			V	FACU	Rapid Test for Hydrophytic	/egetation	
3. Introduction       0.0       1       TAGE       Prevalence Test is < 3.0 <sup>1</sup> 4. Glechoma hederacea       25       Y       FACU       Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         6.						0	
5. Taraxacum officinale   6.   7.   8.   9.   10.   10.   11.   12.   152   152   152   Total Cover      Woody Vine Stratum   (Plot size:   5'   1.   2.   3.   4.   9.   10.   11.   12.   152 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
6.			Y			(D. )	
0.		7		FACU	Morphological Adaptations	(Provide sup	porting
8.	6						
9.	7				Problematic Hydrophytic Ver	getation <sup>1</sup> (Exp	olain)
9.	8						
10.					<sup>1</sup> Indicators of hydric soil and wet	land hydrolog	gy must
11.					be present, unless disturbed or p	problematic.	
12.							
		·					
Woody Vine Stratum       (Plot size: 5')         1.          2.          3.          4.	· · · · · · · · · · · · · · · · · · ·	152	- Total Co	ver			
1.		102	- 1010100	VOI			
1.	Woody Vine Stratum (Plot size: 5')				Hydrophytic		
2.      Present?     YesNo _X       3.							
2.		·				No	Х
4 = Total Cover = Total Cover		·					
= Total Cover       Remarks: (Include photo numbers here or on a separate sheet.)							
Remarks: (Include photo numbers here or on a separate sheet.)	4	·					
			= Total Co	ver			
Area is mowed. Moss – 55%	Remarks: (Include photo numbers here or on a separate	sheet.)					
		,					

I

	cription: (Describe	to the depth n			ator or confirm	n the absence	of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Rec Color (moist)	lox Features % T	ype <sup>1</sup> Loc <sup>2</sup>	Texture	Por	arks
· · · · · · · · · · · · · · · · · · ·				/0 1	ype Loc			lains
0-8	7.5YR 3/2	90		<u> </u>		Silt loam	Stony, dry	
8+				·		Rock		
						- <u> </u>		
						<u> </u>		
<sup>1</sup> Type: C=C	oncentration, D=Dep	bletion, RM=Re	educed Matrix, CS	=Covered or	Coated Sand G	rains. 2	Location: PL=Pore Li	ning, M=Matrix.
Hydric Soil	Indicators:					Indicat	ors for Problematic	Hydric Soils <sup>3</sup> :
-	ol (A1)		Polyvalue Belo	w Surface (S	B) (LRR R,		Muck (A10) <b>(LRR K</b> ,	•
Histic	Epipedon (A2)		MLRA 149E	3)		Coa	st Prairie Redox (A16	) (LRR K, L, R)
Black	Histic (A3)		Thin Dark Surfa	ace (S9) <b>(LRI</b>	R R, MLRA 149	<b>B)</b> 5 cm	Mucky Peat or Peat	(S3) <b>(LRR K, L, R)</b>
Hydrog	gen Sulfide (A4)		Loamy Mucky	Mineral (F1) <b>(</b>	LRR K, L)	Dark	Surface (S7) (LRR K	Κ, L)
Stratifi	ed Layers (A5)		Loamy Gleyed	Matrix (F2)		Poly	value Below Surface	(S8) <b>(LRR K, L)</b>
Deplet	ed Below Dark Surfa	ace (A11)	Depleted Matri	x (F3)		Thin	Dark Surface (S9) (L	RR K, L)
Thick I	Dark Surface (A12)		Redox Dark Su	ırface (F6)		Iron-	Mangenese Masses	(F12) <b>(LRR K, L, R)</b>
Sandy	Mucky Mineral (S1)		Depleted Dark	Surface (F7)		Pied	mont Floodplain Soils	(F19) <b>(MLRA 149B)</b>
Sandy	Gleyed Matrix (S4)		Redox Depress	sions (F8)		Mes	ic Spodic (TA6) <b>(MLR</b>	A 144A, 145, 149B)
Sandy	Redox (S5)					Red	Parent Material (TF2)	)
Strippe	ed Matrix (S6)					Very	Shallow Dark Surfac	e (TF12)
Dark S	Surface (S7) (LRR R	, MLRA 149B)				Othe	er (Explain in Remarks	5)
<sup>3</sup> Indicators of	f Hydrophytic vegeta	ation and wetla	nd hydrology mus	t be present,	unless disturbe	d or problema	tic.	
Restrictive	Layer (if observed)	:						
Type: F								
Depth (in	iches): 8		_		Hydric Soil F	Present?	Yes	<u>No X</u>
			-					
Remarks:								
Remarks.								

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: I-80 Reconstruction	City/County: Monroe Sampling Date: Oct 2, 2013					
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-11 DP1					
Investigator(s): LMM/KLL	Section, Township, Range: Stroud Twp & E Stroudsburg Borough					
Landform (hillslope, terrace, etc.) hillslope Loc	ocal relief (concave, convex, none): Concave					
Slope (%): 0 Lat: 40° 59' 19.404" N	Long: 75° 14' 36.917" W Datum: NAD 83					
Soil Map Unit Name: Volusia gravelly silt loam (VoB), Wyoming gravelly sar						
Are climatic / hydrologic conditions on the site typical for this time of year?						
Are Vegetation, Soil, or Hydrologysignificantly disturbed'						
Are Vegetation, Soil, or Hydrology naturally problematic?						
	npling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area					
	within a Wetland? Yes X No					
Hydric Soil Present? Yes X No	If yes, optional Wetland Site ID: PEM					
Wetland Hydrology Present?     Yes     X     No       Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)					
Surface Water (A1)         X         Water-Stained Leave           X         High Water Table (A2)         Aquatic Fauna (B13)	es (B9) X Drainage Patterns (B10) Moss Trim Lines (B16)					
X Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)					
Water Marks (B1) Hydrogen Sulfide Oc Sediment Deposits (B2) X Oxidized Rhizospher						
Drift Deposits (B3)						
	ion in Tilled Soils (C6) X Geomorphic Position (D2)					
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface ( Other (Explain in Re						
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)					
Field Observations:						
Surface Water Present? Yes No _X_ Depth (inches):						
	7"					
	Wetland Hydrology Present? Yes X No					
(includes capillary fringe)	·					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:					
Remarks:						

#### **VEGETATION -** Use scientific names of plants.

#### Sampling Point: W-3-11 DP1

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft )		Species?	Status	
			Olalao	Number of Dominant Species
				That Are OBL, FACW, or FAC: 2 (A)
2				
3				Total Number of Dominant
4				Species Across All Strata: 2 (B)
5				(=)
6.				Percent of Dominant Species
7.				That Are OBL, FACW, or FAC: 100 (A/B)
/·		= Total Co		
			ivei	
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 30 ft )				Total % Cover of:Multiply by:
1				OBL species 20 x 1 = 20
2				FACW species 123 X 2 = 246
3				
4.				
-				FACU species <u>11</u> X 4 = <u>44</u>
				UPL species X 5 =
6				
7			. <u> </u>	Column Totals: <u>154</u> (A) <u>310</u> (B)
		= Total Co	ver	
				Prevalence Index = $B/A = 2.01$
Herb Stratum (Plot size: 5 ft )				
1. Deschampsia caespitosa	60	Y	FACW	Hydrophytic Vegetation Indicators:
2. Impatiens capensis	30	Y	FACW	Rapid Test for Hydrophytic Vegetation
				x Dominance Test is > 50%
3. Symphyotrichum novae_angliae	20		FACW	x Prevalence Test is $\leq 3.0^{1}$
4. Leersia oryzoides	20		OBL	
5. Agrostis species	20			Morphological Adaptations <sup>1</sup> (Provide supporting
6. Glechoma hederacea	8		FACU	data in Remarks or on a separate sheet)
7. Pilea pumila	8		FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8. Onoclea sinsibilis	5			
9. Oxalis stricta	3		<u> </u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	3		FACU	be present, unless disturbed or problematic.
10				
11				
12				
	174	= Total Co	ver	
Woody Vine Stratum (Plot size: 5')				Hydrophytic
				Vegetation
1 2.			· <u> </u>	Present? Yes X No
3				
4				
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	aboat )			
Remarks. (include photo numbers here of on a separate	sneet.)			

Profile Dese Depth	cription: (Describe Matrix	to the dep	oth needed to docu	ment the in edox Featu		or confirn	n the absenc	e of indicators.)
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 3/2	70	10YR 4/6	5			Silt loam	Moist, organics
4-7	7.5YR 3/2	55	10YR 4/6	20	С	Μ	Silt loam	Saturated
			10YR 5/1	25	D	М		
7+							Rock	
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM	Reduced Matrix, C	S=Covered	d or Coate	ed Sand G	rains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indica	tors for Problematic Hydric Soils <sup>3</sup> :
Histos	ol (A1)		Polyvalue Be	low Surface	e (S8) <b>(LR</b>	RR,	2 cr	m Muck (A10) <b>(LRR K, L, MLRA 149B)</b>
Histic	Epipedon (A2)		MLRA 149	ЭВ)			Coa	ast Prairie Redox (A16) <b>(LRR K, L, R)</b>
Black	Histic (A3)		Thin Dark Su				-	m Mucky Peat or Peat (S3) (LRR K, L, R)
Hydro	gen Sulfide (A4)		Loamy Mucky	y Mineral (F	1) (LRR I	<, L)	Dar	k Surface (S7) <b>(LRR K, L)</b>
	ied Layers (A5)		Loamy Gleye		2)			yvalue Below Surface (S8) <b>(LRR K, L)</b>
	ted Below Dark Surf	ace (A11)	Depleted Mat					n Dark Surface (S9) <b>(LRR K, L)</b>
	Dark Surface (A12)		X Redox Dark S					-Mangenese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dar		,			dmont Floodplain Soils (F19) (MLRA 149B
	Gleyed Matrix (S4)		X Redox Depre	ssions (F8)				sic Spodic (TA6) <b>(MLRA 144A, 145, 149B)</b>
	Redox (S5)							d Parent Material (TF2)
	ed Matrix (S6)							y Shallow Dark Surface (TF12)
Dark S	Surface (S7) <b>(LRR R</b>	8, MLRA 14	49B)				Oth	er (Explain in Remarks)
<sup>3</sup> Indicators o	f Hydrophytic vegeta	ation and w	vetland hydrology mi	ust be pres	ent, unles	s disturbe	d or problema	atic.
Restrictive	Layer (if observed)	):						
Type:	Rock							
Depth (ir	nches): 7"				Hyd	Iric Soil F	resent?	Yes <u>X</u> No
Remarks:								
rtemanto.								

Sampling Point: W-3-11 DP1

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 1-80 Reconstruction	City/County: Monroe Sampling Date: Oct 2, 2013				
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-12 DP1				
Investigator(s): LMM/KLL	Section, Township, Range: Stroud Twp & E Stroudsburg Borough				
	al relief (concave, convex, none): <u>Concave</u>				
Slope (%): 0 Lat: <u>40° 59' 20.601" N</u>	Long: 75° 14' 38.484" W Datum: NAD 83				
Soil Map Unit Name: Volusia gravelly silt loam (VoB), Wyoming gravelly san	dy loam (WyC) 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 Hydrologysignificantly disturbed?	? Are "Normal Circumstances" present? Yes X No				
Are Vegetation X, Soil , or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sam	ppling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area				
Hydric Soil Present?         Yes         X         No	within a Wetland? Yes X No				
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: PEM/FO				
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) X Water-Stained Leave	es (B9) X Drainage Patterns (B10)				
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)				
X Saturation (A3) Marl Deposits (B15) Water Marks (B1) X Hydrogen Sulfide Oc					
Sediment Deposits (B2) Oxidized Rhizospher	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)     Algal Mat or Crust (B4)     Presence of Reduce     Recent Iron Reduction					
Iron Deposits (B5) Thin Muck Surface (	(C7) Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rei Sparsely Vegetated Concave Surface (B8)	emarks) Microtopographic Relief (D4) FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes No X Depth (inches):					
	——				
Water Table Present? Yes No X Depth (inches):	Wetland Hydrology Present? Yes X No				
Saturation Present? Yes X No Depth (inches): 0" (includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:				
Remarks:					
Remarks:					

#### **VEGETATION -** Use scientific names of plants.

Sampling Point: W-3-12 DP1

		Densinent	La d'a stan	Dominance Test worksheet:
Tree Streture (Distaire) 20 ft	Absolute	Dominant		Dominance rest worksheet.
Tree Stratum (Plot size: 30 ft )		Species?	Status	Number of Dominant Species
1. Acer saccharum	20	Y	FACU	That Are OBL, FACW, or FAC: 1 (A)
2	·			
3				
4				Total Number of Dominant
				Species Across All Strata: <u>3</u> (B)
				Percent of Dominant Species
7	·			That Are OBL, FACW, or FAC: <u>33</u> (A/B)
	20	= Total Co	ver	
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 30 ft )				Total % Cover of: Multiply by:
1. Ligustrum vulgare	5	Y	FACU	OBL species 15 x 1 = 15
2.				FACW species 14 X 2 = 28
3.	·			
				FAC species 15 <u>X 3 = 45</u>
4	·			FACU species 25 X 4 =100
5	·			
6				UPL species 0 X 5 = 0
7				Column Totals: 69(A) 188(B)
	5	= Total Co	ver	
Harb Stratum (Blat size: 5 ft )				Prevalence Index = $B/A = 2.72$
Herb Stratum (Plot size: 5 ft )		X	540	Hydrophytic Vegetation Indicators:
1. Microstegium vimineum	80	Y	FAC	Rapid Test for Hydrophytic Vegetation
2. Persicaria sagittata	15		OBL	
3. Impatiens capensis	12		FACW	Dominance Test is > 50%
4. Solidago rugosa	10		FAC	<u>x</u> Prevalence Test is $\leq 3.0^1$
5. Pilea pumila	8		FACW	Morphological Adaptations <sup>1</sup> (Provide supporting
6. Sedge species	8			data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7. Symphyotrichum novae-angliae	6		FACW	
8. Persicaria virginiana	5		FAC	
9				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
10				be present, unless disturbed or problematic.
111				
12				
12	144	= Total Co		
	144		vei	
Woody Vine Stratum (Plot size: 5')				Hydrophytic
1				Vegetation
2				Present? Yes <u>No X</u>
3.				
4.				
···	·			
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			
	oncor.)			

SOIL								Sampling Point:	W-3-12 DP1
Profile Desc	cription: (Describe	to the dep	th needed to docur	ment the ir	ndicator o	r confirr	n the absence	e of indicators.)	
Depth	Matrix	-	Re	edox Featur	res		_		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rema	
0-1	7.5YR 2.5/1	50		·	<u> </u>		Silt loam	50% organic, saturate	d, organic staining
	7.5YR 4/6	50					<u> </u>	- <u> </u>	
1-3	7.5YR 2.5/1	80	7.5YR 5/1			<u>M</u>	Silt loam	Saturated	
3-9	7.5YR 5/1	50	Gley 1 4N			<u>M</u>	Si cl loam	Saturated, slight sulfic	lic odor
			7.5YR 2.5/1	25	D	М			
9	·			·	··		Rock	·	
<sup>1</sup> Type: C=C	oncentration, D=Dep	oletion, RM	=Reduced Matrix, C	S=Covered	or Coate	d Sand G	Grains.	<sup>2</sup> Location: PL=Pore Lini	ing, M=Matrix.
Hydric Soil	Indicators:						Indica	tors for Problematic H	ydric Soils <sup>3</sup> :
	ol (A1)		Polyvalue Bel		e (S8) <b>(LR</b>	R R,	2 cr	n Muck (A10) <b>(LRR K, L</b>	., MLRA 149B)
	Epipedon (A2)		MLRA 149					st Prairie Redox (A16) (	
	Histic (A3)		Thin Dark Sur					n Mucky Peat or Peat (S	
	gen Sulfide (A4)		Loamy Mucky		, .	., L)		k Surface (S7) (LRR K,	•
	ed Layers (A5)		Loamy Gleyed		2)			value Below Surface (S	, ,
	ed Below Dark Surfa	ace (ATT)	X Depleted Mat	. ,	\			Dark Surface (S9) (LR	
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dark S					-Mangenese Masses (F Imont Floodplain Soils (	
	Gleyed Matrix (S4)		Redox Depres					sic Spodic (TA6) <b>(MLRA</b>	
	Redox (S5)							Parent Material (TF2)	
	ed Matrix (S6)							y Shallow Dark Surface	(TF12)
	Surface (S7) (LRR R	, MLRA 14	9B)					er (Explain in Remarks)	
<sup>3</sup> Indicators o	f Hydrophytic vegeta	ation and w	etland hydrology mu	ist be prese	ent, unless	disturbe	d or problema	tic.	
	Layer (if observed)	:							
Type:	Rock				Hvd	ric Soil F	Prosent?	Yes X	No
Depth (ir	nches): 9"				Hydric Soil Present? Yes X No				_ 110
Remarks:									

SOIL

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 1-80 Reconstruction	City/County: Monroe Sampling Date: Oct 2, 2013					
Applicant/Owner: Pennsylvania Department of Transportation	State: Pennsylvania Sampling Point: W-3-13 DP1					
Investigator(s): LMM/KLL	Section, Township, Range: Stroud Twp & E Stroudsburg Borough					
	ocal relief (concave, convex, none): Concave					
Slope (%): 0 Lat: 40° 59' 20.840" N	Long: 75° 14' 38.062" W Datum: NAD 83					
Soil Map Unit Name: Volusia gravelly silt loam (VoB), Wyoming gravelly sar						
Are climatic / hydrologic conditions on the site typical for this time of year?						
Are Vegetation, Soil, or Hydrologysignificantly disturbed'						
Are Vegetation, Soil, or Hydrology naturally problematic?						
	npling point locations, transects, important features, etc.					
Hydrophytic Vegetetien Drocopt2	to the Semulad Area					
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area within a Wetland? Yes X No					
Hydric Soil Present?     Yes     X     No	If yes, optional Wetland Site ID: PEM					
Wetland Hydrology Present?     Yes     X     No       Remarks:	, ,					
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)					
Drift Deposits (B3) Presence of Reduce	)       Moss Trim Lines (B16)         Dry-Season Water Table (C2)         dor (C1)       Crayfish Burrows (C8)         res on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         od Iron (C4)       Stunted or Stressed Plants (D1)         on in Tilled Soils (C6)       X         C7)       Shallow Aquitard (D3)					
Field Observations:						
Surface Water Present? Yes No X Depth (inches):						
Water Table Present? Yes X No Depth (inches): 2"	, Wetland Hydrology Present? Yes X No					
Saturation Present? Yes X No Depth (inches): 0" (includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	avious inspections), if available:					
Remarks:						
Remarks.						

#### **VEGETATION -** Use scientific names of plants.

Sampling Point: W-3-13 DP1

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30 ft )		Species?	Status		
				Number of Dominant Species	
2.				That Are OBL, FACW, or FAC: 4	(A)
				Total Number of Dominant	
	· ·			Species Across All Strata: 5	(B)
5					
6				Percent of Dominant Species	
7				That Are OBL, FACW, or FAC: 80 (A	A/B)
		= Total Co	ver		
				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: 30 ft )				Total % Cover of: Multiply by:	
1. Berberis thunbergii	5	Y	FACU	OBL species 66 x 1 = 66	
2.				FACW species $30$ X 2 = $60$	•
3.					
				FAC species <u>18</u> X 3 = <u>54</u>	
-				FACU species <u>5</u> X 4 = <u>20</u>	
				UPL species X 5 =	
6					(P)
7				Column Totals: <u>119</u> (A) <u>200</u>	(B)
	5	= Total Co	ver		
				Prevalence Index = $B/A = 1.68$	
Herb Stratum (Plot size: 5 ft )					
1. Leersia oryzoides	30	Y	OBL	Hydrophytic Vegetation Indicators:	
2. Agrostis species	25			Rapid Test for Hydrophytic Vegetation	
3. Symphyotrichum novae-angliae	22	Y	FACW	X Dominance Test is > 50%	
4. Persicaria sagittata	18	Y	OBL	X Prevalence Test is $\leq 3.0^1$	
		Y	OBL	Morphological Adaptations <sup>1</sup> (Provide support	rtina
5. Epilobium coloratum	18	<u> </u>	UBL	data in Remarks or on a separate sheet)	illing
6. <u>Scirpus species</u>	12			. ,	
7. Solanum dulcamara	10		FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Expla	ain)
8. <u>Solidago rugosa</u>	8		FAC		
9. Pilea pumila	5		FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology	must
10. Impatiens capensis	3		FACW	be present, unless disturbed or problematic.	
11					
12					
	151	= Total Co	ver		
		- 10101 00			
Woody Vine Stratum (Plot size: 5')				Hydrophytic	
				Vegetation	
	·			Present? Yes X No	
2					
3	·				
4					
		= Total Co	ver		
Remarks: (Include photo numbers here or on a separate	aboot )				
Remarks: (Include photo numbers here of on a separate	sneet.)				

SOIL	
------	--

Profile Desc Depth	ription: (Describe Matrix	to the depth r		nent the ind		confirm	the absence	e of indicators.)
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 2/1	50	· · · ·				Silt loam	50% organics, saturated
4-8	10YR 4/1	90					Silt loam	Saturated, stony
			<u> </u>				<u>ent loan</u>	
					·			
			<u> </u>					
					<u> </u>			
			<u> </u>					
			<u> </u>		<u> </u>			
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=Re	educed Matrix, C	S=Covered o	or Coated	Sand Gr	ains. <sup>2</sup>	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicat	tors for Problematic Hydric Soils <sup>3</sup> :
Histos	ol (A1)		Polyvalue Bel	ow Surface (	S8) <b>(LRR</b>	R,	2 cm	n Muck (A10) <b>(LRR K, L, MLRA 149B)</b>
Histic I	Epipedon (A2)		MLRA 149	В)			Coa	st Prairie Redox (A16) <b>(LRR K, L, R)</b>
Black I	Histic (A3)	>	Thin Dark Sur	face (S9) <b>(Ll</b>	RR R, ML	.RA 149E	<b>3)</b> 5 cm	n Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrog	gen Sulfide (A4)		Loamy Mucky	Mineral (F1)	) (LRR K,	L)	Dark	< Surface (S7) (LRR K, L)
Stratifi	ed Layers (A5)		Loamy Gleyed	d Matrix (F2)			Poly	value Below Surface (S8) (LRR K, L)
Deplet	ed Below Dark Surf	ace (A11)	Depleted Matr	ix (F3)			Thin	Dark Surface (S9) (LRR K, L)
Thick I	Dark Surface (A12)		Redox Dark S	urface (F6)			Iron	-Mangenese Masses (F12) (LRR K, L, R)
Sandy	Mucky Mineral (S1)	)	Depleted Dark	Surface (F7	7)		Piec	Imont Floodplain Soils (F19) (MLRA 149B)
Sandy	Gleyed Matrix (S4)		Redox Depres	sions (F8)			Mes	ic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy	Redox (S5)						Red	Parent Material (TF2)
Strippe	ed Matrix (S6)						Very	/ Shallow Dark Surface (TF12)
Dark S	Surface (S7) (LRR R	R, MLRA 149B)	1				Othe	er (Explain in Remarks)
<sup>3</sup> Indicators of	f Hydrophytic vegeta	ation and wetla	nd hydrology mu	st be presen	t, unless	disturbec	l or problema	tic.
Restrictive	Layer (if observed)	):						
Type:		·						
Depth (in	ches):		_		Hydri	ic Soil P	resent?	Yes X No
	·		-					
Remarks:								
Remarks.								

# Appendix B

**Resource Photographs** 





Subject of Photo: Wetland W-1-01

**Direction of Photo:** Northwest

Date: September 24, 2013.



Photo – 2

Subject of Photo: Wetland W-2-01

**Direction of Photo:** West

Date: September 25, 2013.





Subject of Photo: Wetland W-2-01

**Direction of Photo:** West

Date: September 25, 2013.



Photo – 4

Subject of Photo: Wetland W-2-02

**Direction of Photo:** Northwest

Date: September 24, 2013.





Subject of Photo: Wetland W-2-03

**Direction of Photo:** Southeast

Date: September 26, 2013.



Photo – 6

Subject of Photo: Wetland W-2-04

**Direction of Photo:** Southeast

Date: September 26, 2013.





Subject of Photo: Wetland W-2-05

**Direction of Photo:** West

Date: September 23, 2013.



Photo – 8

Subject of Photo: Wetland W-2-05

**Direction of Photo:** East

Date: September 23, 2013.





Photo – 9

Subject of Photo: Wetland W-2-05

**Direction of Photo:** Northeast

Date: September 23, 2013.



Photo – 10

Subject of Photo: Wetland W-2-06

**Direction of Photo:** Southeast

Date: September 24, 2013.





Subject of Photo: Wetland W-2-06

**Direction of Photo:** Southeast

Date: September 24, 2013.

Photo – 12

Subject of Photo: REMOVED





Subject of Photo: Wetland W-2-08

**Direction of Photo:** Southeast

**Date:** October 2, 2013.

Photo – 14

Subject of Photo: REMOVED





Subject of Photo: Wetland W-3-01

**Direction of Photo:** Southwest

Date: September 17, 2013.



Photo – 16

Subject of Photo: Wetland W-3-02

**Direction of Photo:** South

Date: September 17, 2013.



Subject of Photo: REMOVED



Photo – 18

Subject of Photo: Wetland W-3-04

**Direction of Photo:** West

**Date:** January 13, 2013.



Subject of Photo: REMOVED



Photo – 20

Subject of Photo: Wetland W-3-06

**Direction of Photo:** West

**Date:** January 13, 2013.





Subject of Photo: Wetland W-3-07

Direction of Photo: East

**Date:** January 13, 2013.

Photo – 22

Subject of Photo: REMOVED





Photo – 23

Subject of Photo: Wetland W-3-09

**Direction of Photo:** Southeast

Date: September 25, 2013.



Photo – 24

Subject of Photo: Wetland W-3-09

**Direction of Photo:** West

Date: September 25, 2013.





Subject of Photo: Wetland W-3-10

**Direction of Photo:** South

Date: September 17, 2013.



Photo – 26

Subject of Photo: Wetland W-3-11

**Direction of Photo:** Southeast

**Date:** October 22, 2013.





Subject of Photo: Wetland W-3-12

**Direction of Photo:** Northwest

**Date:** October 22, 2013.



Photo – 28

Subject of Photo: Wetland W-3-13

**Direction of Photo:** Southeast

**Date:** October 22, 2013.



Subject of Photo: REMOVED





Subject of Photo: Brodhead Creek Waterway WW-1-00

**Direction of Photo:** Southeast (downstream)

**Date:** September 25, 2013.



Photo – 31

Subject of Photo: Brodhead Creek Waterway WW-1-00

**Direction of Photo:** Northwest (upstream)





Photo – 32 Subject of Ph

Subject of Photo: Waterway WW-1-01

**Direction of Photo:** Northeast (upstream)

Date: September 25, 2013.



Photo – 33

Subject of Photo: Waterway WW-1-01

**Direction of Photo:** Southwest (downstream)





Photo – 34 Waterway WW-1-02

**Direction of Photo:** Northwest (upstream)

Date: September 25, 2013.



Photo – 35

Waterway WW-1-02

**Direction of Photo:** Southeast (downstream)





Photo – 36 Subject of Photo: Waterway

**Direction of Photo:** Southwest (Upstream)

Date: May 21, 2014



Photo – 37

Subject of Photo: Waterway WW-1-03

Direction of Photo: Northeast (downstream)





Subject of Photo: McMichael Creek Waterway WW-2-00

**Direction of Photo:** Northeast (downstream)

Date: September 17, 2013.



Photo – 39

Subject of Photo: McMichael Creek Waterway WW-2-00

**Direction of Photo:** Southwest (upstream)



Subject of Photo: REMOVED

Photo – 41

Subject of Photo: REMOVED





Subject of Photo: Waterway WW-2-02

**Direction of Photo:** Southeast (upstream)

Date: September 25, 2013.



Photo – 43

Subject of Photo: Waterway WW-2-02

**Direction of Photo:** Northwest (downstream)





Subject of Photo: Waterway WW-2-03

**Direction of Photo:** Southwest (upstream)

**Date:** May 21, 2014.



Photo – 45

Subject of Photo: Waterway WW-2-03

**Direction of Photo:** Northeast (downstream)





Subject of Photo: Waterway WW-2-04

**Direction of Photo:** Northwest (upstream)

**Date:** May 21, 2014.



Photo – 47

Subject of Photo: Waterway WW-2-04

**Direction of Photo:** Southeast (downstream)





Subject of Photo: Waterway WW-2-05

**Direction of Photo:** South (upstream)

**Date:** May 21, 2014.



Photo – 49

**Subject of Photo:** Waterway WW-2-05

**Direction of Photo:** North (downstream)





Subject of Photo: Waterway WW-2-06

**Direction of Photo:** South (upstream)

**Date:** May 21, 2014.



Photo – 51

Subject of Photo: Waterway WW-2-06

**Direction of Photo:** North (downstream)





Subject of Photo: Waterway WW-2-07

**Direction of Photo:** Southeast (upstream)

**Date:** May 21, 2014.



Photo – 53

Subject of Photo: Waterway WW-2-07

**Direction of Photo:** North (downstream)





Subject of Photo: Waterway WW-2-08

**Direction of Photo:** Southeast (upstream)

**Date:** May 21, 2014.



Photo – 55

Subject of Photo: Waterway WW-2-08

**Direction of Photo:** Northwest (downstream)





Subject of Photo: Waterway WW-2-09

**Direction of Photo:** Southeast (upstream)

**Date:** May 21, 2014.



Photo – 57

Subject of Photo: Waterway WW-2-09

**Direction of Photo:** North (downstream)



Subject of Photo: REMOVED

Photo – 59

Subject of Photo: REMOVED





Subject of Photo: Waterway WW-2-11

**Direction of Photo:** Southeast (upstream)

Date: September 25, 2013.



Photo – 61

Subject of Photo: Waterway WW-2-11

**Direction of Photo:** Northwest (downstream)





Subject of Photo: Waterway WW-2-12

**Direction of Photo:** North (downstream)

Date: September 26, 2013.



Photo – 63

Subject of Photo: Waterway WW-2-13

**Direction of Photo:** North (downstream)





Subject of Photo: Waterway WW-2-14

**Direction of Photo:** Northwest (downstream)

**Date:** May 21, 2014.



Photo – 65

Subject of Photo: Pocono Creek Waterway WW-3-00

**Direction of Photo:** Southwest (upstream)





Subject of Photo: Pocono Creek Waterway WW-3-00

**Direction of Photo:** Northeast (downstream)

Date: September 18, 2013.



Photo – 67

Subject of Photo: Little Pocono Creek Waterway WW-3-01

**Direction of Photo:** Southwest (upstream)





Subject of Photo: Little Pocono Creek Waterway WW-3-01

**Direction of Photo:** Northeast (downstream)

**Date:** September 17, 2013.



Photo – 69

Subject of Photo: Little Pocono Creek Waterway WW-3-01

**Direction of Photo:** South (upstream)





Subject of Photo: Little Pocono Creek Waterway WW-3-01

**Direction of Photo:** East (downstream)

**Date:** September 17, 2013.

Photo – 71

Subject of Photo: REMOVED





Subject of Photo: Waterway WW-3-03

**Direction of Photo:** West (upstream)

**Date:** May 21, 2014.



Photo – 73

Subject of Photo: Waterway WW-3-03

**Direction of Photo:** East (downstream)



Subject of Photo: REMOVED



Photo – 75

Subject of Photo: Waterway WW-3-05

**Direction of Photo:** East (upstream)





Subject of Photo: Waterway WW-3-06

**Direction of Photo:** Northwest (upstream)

**Date:** September 25, 2013.



Photo – 77

Subject of Photo: Waterway WW-3-06

**Direction of Photo:** Southeast (downstream)





Subject of Photo: Waterway WW-3-07

**Direction of Photo:** North (upstream)

**Date:** September 25, 2013.



Photo – 79

Subject of Photo: Waterway WW-3-07

**Direction of Photo:** Southeast (downstream)



Subject of Photo: REMOVED



Photo – 81

Subject of Photo: Waterway WW-3-09

**Direction of Photo:** North (upstream)





Subject of Photo: Waterway WW-3-09

**Direction of Photo:** South (downstream)

Date: September 25, 2013.



Photo – 83

Subject of Photo: Waterway WW-3-10

**Direction of Photo:** North (upstream)





Subject of Photo: Waterway WW-3-10

**Direction of Photo:** South (downstream)

Date: September 25, 2013.



Photo – 85

Subject of Photo: Waterway WW-3-11

**Direction of Photo:** Northwest (upstream)





Subject of Photo: Waterway WW-3-11

**Direction of Photo:** Southeast (downstream)

Date: September 25, 2013.



Photo – 87

Subject of Photo: Waterway WW-3-12

**Direction of Photo:** Northwest (upstream)





Photo - 88

Subject of Photo: Waterway WW-3-12

**Direction of Photo:** Southeast (downstream)

**Date:** September 25, 2013.



Photo – 89

Subject of Photo: Waterway WW-3-13

**Direction of Photo:** Northwest (upstream)





Subject of Photo: Waterway WW-3-13

**Direction of Photo:** Southeast (downstream)

Date: September 25, 2013.



Photo – 91

Subject of Photo: Waterway WW-3-14

**Direction of Photo:** North (upstream)





Subject of Photo: Waterway WW-3-14

**Direction of Photo:** South (downstream)

**Date:** May 21, 2014.

Photo – 93

Subject of Photo: REMOVED





Subject of Photo: Waterway WW-3-16

**Direction of Photo:** North (upstream)

**Date:** September 25, 2013.



Photo – 95

Subject of Photo: Waterway WW-3-17

**Direction of Photo:** North (downstream)





Subject of Photo: Waterway WW-3-18

**Direction of Photo:** East (downstream)

**Date:** May 21, 2014.



Photo – 97

Subject of Photo: Waterway WW-3-18

**Direction of Photo:** East (downstream)



Subject of Photo: REMOVED

Photo – 99

Subject of Photo: REMOVED

## Appendix C

## **Function Value Evaluation Forms**

Total area of Wetland 0.04 Human made? Yes	Wetland I.D. W-1-01					
Adjacent land use <u>Levee</u> Distance to nearest roadway	Prepared by: <u>CCS</u> Date <u>10/22/13</u>					
Dominant wetland systems present <u>PEM</u> Contiguous	Wetland Impact: Type <u>None</u> Area					
Is the wetland a separate hydraulic system? <u>No</u> If n	Evaluation Based on: Office 🗌 Field 🔳					
How many tributaries contribute to the wetland? 1	Corps manual wetland delineation completed? Y 🔳 N 🗌					
	Suita	bility	<b>Rational</b>	Princip	al	
Function/Value	Y	N	(Reference #)*		on(s)/Value(s)	Comments
Groundwater Recharge/Discharge						
Flood flow Alteration	$\checkmark$		8, 9, 10, 11, 12, 13, 17	Yes	Wetland is part of a levee system	m.
Fish and Shellfish Habitat		$\checkmark$				
V/ Sediment/Toxicant Retention		$\checkmark$				
Nutrient Removal	$\checkmark$		3, 8, 9, 10			
Production Export			1, 7, 12			
Sediment/Shoreline Stabilization	$\checkmark$		2, 4, 6	Yes	Wetland is part of a levee system	m.
🖢 Wildlife Habitat	$\checkmark$		7, 8, 17, 19, 20, 21			
A Recreation	$\checkmark$		1, 8, 9, 10, 11, 12		The levee system is used as a p	park.
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland is located at the toe of slope of a levee on the Brodhead Creek.

Total area of Wetland 0.56 Human made? Yes Is	s wet la	and pa	rt of a wild life corridor? Yes	or a	"habitat island"? <u>No</u>	Wetland I.D. W-2-01
Adjacent land use <u>Parkland</u> Distance to nearest roadway of	Prepared by: <u>CCS</u> Date <u>10/22/13</u>					
Dominant wetland systems present <u>PEM/FO</u> Contiguous	Wetland Impact: Type <u>None</u> Area					
Is the wetland a separate hydraulic system? <u>No</u> If no	Evaluation Based on: Office 🗌 Field 🔳					
How many tributaries contribute to the wetland? 1	Corps manual wetland delineation completed? Y $\blacksquare$ N $\Box$					
	Suita	bility	y Rational	Princip	al	
Function/Value	Y		(Reference #)*		on(s)/Value(s)	Comments
Groundwater Recharge/Discharge		$\checkmark$				
Flood flow Alteration	$\checkmark$		5, 6, 7, 8, 9, 10, 11, 13, 18	Yes		
Fish and Shellfish Habitat		$\checkmark$				
V/ Sediment/Toxicant Retention	$\checkmark$		1, 2, 3, 4, 5, 10, 12, 14, 16			
Nutrient Removal			3, 4, 5, 8, 9, 10, 11, 12, 13			
Production Export	$\checkmark$		1, 2, 4, 6, 7, 8, 10, 12			
Sediment/Shoreline Stabilization	$\checkmark$		1, 7, 8, 12, 14, 15		New trees were planted as part	of the Rt 611 (Park Ave) bridge replacement.
🖢 Wildlife Habitat	$\checkmark$		6, 8, 9, 10, 13, 14, 15, 19, 20			
<b>A</b> Recreation	$\checkmark$		1, 2, 5, 10, 11, 12		Rotary Park abuts this area.	
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland is located under the recently constructed Rt 611 (Park Ave) Bridge. \*Refer to backup list of numbered considerations.

Total area of Wetland 0.56 Hu man made? Yes	ls wet la	and pa	rt of a wild life corridor? <u>No</u>	or a	"habitat island"? Yes	Wetland I.D. W-2-02
Adjacent land use <u>Roadway</u> Distance to nearest roadway	Prepared by: <u>CCS</u> Date <u>10/22/13</u>					
Dominant wetland systems present <u>PEM/SS</u> Contiguous	Wetland Impact: Type <u>None</u> Area					
Is the wetland a separate hydraulic system? Yes If n	.?	Evaluation Based on: Office 🗌 Field 🔳				
How many tributaries contribute to the wetland? 1	ttached list)	Corps manual wetland delineation completed? Y $\blacksquare$ N $\Box$				
	Suita	bility		Princip	bal	
Function/Value	Y	Ν	(Reference #)*	Functio	on(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		7, 13, 15	Yes		
Floodflow Alteration		$\checkmark$				
Fish and Shellfish Habitat		$\checkmark$				
V/ Sediment/Toxicant Retention		$\checkmark$				
Nutrient Removal	$\checkmark$		3, 8, 9, 10, 11, 12			
Production Export	$\checkmark$		1, 2, 4, 7, 8, 12			
Sediment/Shoreline Stabilization		$\checkmark$				
🖢 Wildlife Habitat	$\checkmark$		8, 10, 13, 15, 17, 19, 20, 21			
A Recreation		$\checkmark$				
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland is located in the gore area of Exit 307.

Total area of Wetland 0.006 Human made? No I	s wet la	and pa	rt of a wild life corridor? Yes	or a	"habitat island"? <u>No</u>	Wetland I.D. <u>W-2-03</u>
Adjacent land use <u>Floodplain</u> Distance to nearest roadway	Prepared by: <u>CCS</u> Date <u>1/13/14</u>					
Dominant wetland systems present Contiguous	Wetland Impact: Type None Area					
Is the wetland a separate hydraulic system? <u>No</u> If n	1? Lower	Evaluation Based on: Office 🗆 Field 🔳				
How many tributaries contribute to the wetland?	ttached list)	Corps manual wetland delineation completed? Y $\blacksquare$ N $\Box$				
	Suita	bility	y Rational	Princip	bal	
Function/Value	Y	N	(Reference #)*	Functio	on(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		8, 13	Yes		
Flood flow Alteration		$\checkmark$				
Fish and Shellfish Habitat		$\checkmark$				
V/ Sediment/Toxicant Retention	$\checkmark$		1, 10, 15, 16			
Nutrient Removal	$\checkmark$		3, 8			
Production Export			1, 4, 8			
Sediment/Shoreline Stabilization		$\checkmark$				
🖢 Wildlife Habitat	$\checkmark$		8, 14, 17, 19			
A Recreation		$\checkmark$				
Educational/Scientific Value		$\checkmark$				
🔶 Uniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other		$\checkmark$				

Notes: Wetland is located along the bank of McMichael Creek (S-2-00).

Total area of Wetland 0.38 Human made? No 1	nabitat island"? <u>No</u>	Wetland I.D. <u>W-2-04</u> & W-2-04a				
Adjacent land use <u>Floodplain</u> Distance to nearest roadway		Prepared by: <u>CCS</u> Date <u>1/13/14</u>				
Dominant wetland systems present <u>PFO</u> Contiguous		Wetland Impact: Type None Area				
Is the wetland a separate hydraulic system? <u>No</u> If n	Lower	Evaluation Based on: Office 🗌 Field 🔳				
How many tributaries contribute to the wetland? 1	ched list)	Corps manual wetland delineation completed? Y $\blacksquare$ N $\Box$				
	Suita	ability	y Rational	Principa	1	
Function/Value	Y		(Reference #)*		n(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		8, 13	Yes		
Floodflow Alteration	$\checkmark$		6, 8, 9, 10, 18	Yes		
Fish and Shellfish Habitat						
V/ Sediment/Toxicant Retention	$\checkmark$		1, 10, 15, 16			
Nutrient Removal	$\checkmark$		3, 8			
Production Export	$\checkmark$		1, 4, 8			
Sediment/Shoreline Stabilization		$\checkmark$				
🖢 Wildlife Habitat	$\checkmark$		8, 14, 19			
A Recreation						
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage						
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland is located along the bank of McMichael Creek (S-2-00).

Total area of Wetland 2.61 Human made? No I	Wetland I.D. W-2-05					
Adjacent land use <u>Roadway</u> Distance to nearest roadway		Prepared by: <u>CCS</u> Date <u>10/22/13</u>				
Dominant wetland systems present provem/ss Contiguous	Wetland Impact: Type None Area					
Is the wetland a separate hydraulic system? <u>No</u> If n	? Lower	Evaluation Based on: Office 🗌 Field 🔳				
How many tributaries contribute to the wetland? $^{>1}$	tached list)	Corps manual wetland delineation completed? Y IN N				
	Suita	bility	Rational	Princip	al	
Function/Value		N	(Reference #)*		on(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		2, 7, 8, 13, 15	Yes		
Flood flow Alteration	$\checkmark$		1, 6, 7, 8, 9, 10, 11, 13, 18	Yes		
Fish and Shellfish Habitat	$\checkmark$		2, 4, 8, 10, 17			
V/ Sediment/Toxicant Retention	$\checkmark$		2, 5, 10, 12, 16			
Nutrient Removal	$\checkmark$		3, 5, 8, 11, 12, 14			
Production Export	$\checkmark$		1, 2, 4, 7, 8, 9			
Sediment/Shoreline Stabilization	$\checkmark$		1, 7, 12, 13			
🖢 Wildlife Habitat	$\checkmark$		8, 9, 10, 13, 14, 15, 17, 19, 21			
<b>A</b> Recreation						
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland sits inside a bowl and along the toe of slope of I-80.

Total area of Wetland 0.79 Human made? No I	s wet la	and par	rt of a wild life corridor? Yes	or a	"habitat island"? <u>No</u>	Wetland I.D. <u>W-2-06</u>
Adjacent land use <u>Roadway</u> Distance to nearest roadway		Prepared by: <u>CCS</u> Date <u>10/22/13</u>				
Dominant wetland systems present Contiguous		Wetland Impact: Type None Area				
Is the wetland a separate hydraulic system? <u>No</u> If n	? Lower	Evaluation Based on: Office 🗌 Field 🔳				
How many tributaries contribute to the wetland? $^{>1}$	ttached list)	Corps manual wet land delineation completed? Y IN N				
	Suita	bility	<b>Rational</b>	Princip	al	1 <u>7</u>
Function/Value	Y	N	(Reference #)*	Functio	on(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		2, 7, 8, 13, 15	Yes		
Flood flow Alteration	$\checkmark$		1, 6, 7, 8, 9, 10, 11, 13, 18	Yes		
Fish and Shellfish Habitat	$\checkmark$		2, 4, 8, 10, 17			
V/ Sediment/Toxicant Retention	$\checkmark$		2, 5, 10, 12, 16			
Nutrient Removal	$\checkmark$		3, 5, 8, 11, 12, 14			
Production Export	$\checkmark$		1, 2, 4, 7, 8, 9			
Sediment/Shoreline Stabilization	$\checkmark$		1, 7, 12, 13			
🖢 Wildlife Habitat	$\checkmark$		8, 9, 10, 13, 14, 15, 17, 19, 21			
<b>A</b> Recreation						
Educational/Scientific Value		$\checkmark$				
🔶 Uniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland sits along a tributary of McMichael Creek (S-2-11) and along the toe Refer to backup list of numbered considerations. of I-80.

Total area of Wetland 0.015 Human made? No Is	Wetland I.D. <u>W-2-08</u>					
Adjacent land use <u>Stream</u> Distance to nearest roadway of	Prepared by: <u>CCS</u> Date <u>10/22/13</u>					
Dominant wetland systems present <u>PEM</u> Contiguous	Wetland Impact: Type None Area					
Is the wetland a separate hydraulic system? <u>No</u> If no	Evaluation Based on: Office 🗌 Field 🔳					
How many tributaries contribute to the wetland? 1	ttached list)	Corps manual wetland delineation completed? Y $\blacksquare$ N $\Box$				
	Suita	bility	y Rational	Princip	al	
Function/Value	Y	N	(Reference #)*	Functio	on(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		4, 9			
Flood flow Alteration	$\checkmark$		5, 6, 8, 9, 10, 13	Yes		
Fish and Shellfish Habitat		$\checkmark$				
V/ Sediment/Toxicant Retention	$\checkmark$		1, 2, 4, 10			
Nutrient Removal	$\checkmark$		3, 4			
Production Export	$\checkmark$		2, 4			
Sediment/Shoreline Stabilization	$\checkmark$		1			
🖢 Wildlife Habitat	$\checkmark$		17, 19, 20			
A Recreation		$\checkmark$				
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland sits along a tributary of McMichael Creek (S-2-11) under I-80.

Total area of Wetland 0.003 Human made? Yes Is	s wet la	ind pa	rt of a wild life corridor? Yes	or a	"habitat island"? <u>No</u>	Wetland I.D. W-3-01
Adjacent land use <u>Comm</u> Distance to nearest roadway of		Prepared by: <u>CCS</u> Date <u>10/22/13</u>				
Dominant wetland systems present <u>PEM</u> Contiguous	Wetland Impact: Type None Area					
Is the wetland a separate hydraulic system? <u>No</u> If no	? Lower	Evaluation Based on: Office 🗌 Field 🔳				
How many tributaries contribute to the wetland? 1	tached list)	Corps manual wetland delineation completed? Y 🔳 N 🗌				
	Suita	bility	<b>Rational</b>	Princip	al	
Function/Value	Y		(Reference #)*		n(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		2, 4, 7, 12	Yes		
Flood flow Alteration	$\checkmark$		5, 6, 10, 11, 13	Yes		
Fish and Shellfish Habitat	$\checkmark$		4, 7, 12, 17			
V/ Sediment/Toxicant Retention			2, 6, 10			
Nutrient Removal	$\checkmark$		3, 4			
Production Export	$\checkmark$		1			
Sediment/Shoreline Stabilization	$\checkmark$		1, 9			
<b>Wildlife Habitat</b>	$\checkmark$		8, 19			
A Recreation		$\checkmark$				
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other		$\checkmark$			Wetland is in a maintained area	(landscaped, mowed).

Notes: Wetland is located between commercial businesses (gas station, Perkins). \*Re

Total area of Wetland <u>6.37</u> Human made? <u>No</u>	Is wet la	nd pa	rt of a wild life corridor? Yes	or a	"habitat island"? <u>No</u>	Wetland I.D. W-3-02
Adjacent land use <u>Residenti</u> Distance to nearest road	Prepared by: <u>CCS</u> Date <u>10/22/13</u>					
Dominant wetland systems present <u>pow/em/s</u> Contigu	Wetland Impact: Type None Area					
Is the wetland a separate hydraulic system? <u>No</u>	Evaluation Based on: Office 🗌 Field 🔳					
How many tributaries contribute to the wetland? $\geq 1$	Corps manual wetland delineation completed? Y $\blacksquare$ N $\Box$					
	Suita			Princip		_
Function/Value	Y	Ν	(Reference #)*	Functio	on(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		2, 7, 8, 12, 13			
Flood flow Alteration	$\checkmark$		1, 6, 8, 9, 10, 11, 13, 18	Yes		
Fish and Shellfish Habitat	$\checkmark$		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 17	Yes		
V Sediment/Toxicant Retention	$\checkmark$		1, 2, 3, 5, 6, 10, 12, 15, 16			
Nutrient Removal	$\checkmark$		1, 2, 3, 4, 5, 8, 9, 11			
Production Export	$\checkmark$		1, 2, 4, 6, 7, 8, 9			
Sediment/Shoreline Stabilization	$\checkmark$		9, 12, 13, 15			
← Wildlife Habitat	$\checkmark$		1, 3, 8, 9, 10, 11, 14, 15, 18	Yes	Rational # cont. 19, 20, 21, 23	
A Recreation		$\checkmark$				
Educational/Scientific Value		$\checkmark$				
+ Uniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics	$\checkmark$		2, 3, 6, 8, 12			
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland consists of a large open water body with a wet fringe.

Total area of Wetland 0.12 Human made? No Is	"habitat island"? <u>No</u>	Wetland I.D. <u>W-3-04</u>				
Adjacent land use <u>Floodplain</u> Distance to nearest roadway of	Prepared by: <u>CCS</u> Date <u>1/13/14</u>					
Dominant wetland systems present <u>PEM</u> Contiguous	Wetland Impact: Type <u>None</u> Area					
Is the wetland a separate hydraulic system? <u>no</u> If no	1? Lower	Evaluation Based on: Office 🗌 Field 🔳				
How many tributaries contribute to the wetland? 1	Wild	life &	vegetation diversity/abunda	ince (see a	ttached list)	Corps manual wetland delineation completed? Y $\blacksquare$ N $\Box$
	Suita	bility	y Rational	Princip	bal	
Function/Value	Y	N	(Reference #)*	Functio	on(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		8, 13	Yes		
Flood flow Alteration	$\checkmark$		6, 8, 9, 10, 18			
Fish and Shellfish Habitat		$\checkmark$				
V/ Sediment/Toxicant Retention	$\checkmark$		1, 3, 16			
Nutrient Removal	$\checkmark$		3, 8			
Production Export	$\checkmark$					
Sediment/Shoreline Stabilization		$\checkmark$				
🖢 Wildlife Habitat	$\checkmark$		6, 8, 13			
A Recreation		$\checkmark$				
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other		$\checkmark$				

Notes: Wetland is located along the bank of Pocono Creek (S-3-00).

Total area of Wetland 0.10 Human made? Yes I	"habitat island"? <u>No</u>	Wetland I.D. W-3-06				
Adjacent land use <u>Comm</u> Distance to nearest roadway	Prepared by: <u>CCS</u> Date <u>10/22/13</u>					
Dominant wetland systems present <u>PSS/FO</u> Contiguous	Wetland Impact: Type None Area					
Is the wetland a separate hydraulic system? <u>No</u> If no	Evaluation Based on: Office 🗌 Field 🔳					
How many tributaries contribute to the wetland?	ttached list)	Corps manual wetland delineation completed? Y $\blacksquare$ N $\Box$				
	Suita	bilit	y Rational	Princip	bal	
Function/Value	Y	Ν	(Reference #)*	Functio	on(s)/Value(s)	Comments
Groundwater Recharge/Discharge			4, 6, 13	Yes		
Flood flow Alteration		$\checkmark$				
Fish and Shellfish Habitat		$\checkmark$				
V/ Sediment/Toxicant Retention	$\checkmark$		2, 4, 5			
Nutrient Removal			3, 7, 8, 9, 10			
Production Export		$\checkmark$				
Sediment/Shoreline Stabilization		$\checkmark$				
🖢 Wildlife Habitat	$\checkmark$		8, 13			
<b>A</b> Recreation		$\checkmark$				
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland is located in a basin along Pocono Creek (S-3-00).

Total area of Wetland 0.01 Hu man made? No I	s wetla	and pa	rt of a wild life corridor? Yes	s or a "habit	at island"? <u>No</u>	Wetland I.D. W-3-07
Adjacent land use <u>Stream</u> Distance to nearest roadway		Prepared by: <u>CCS</u> Date <u>10/22/13</u>				
Dominant wetland systems present <u>PEM</u> Contiguous		Wetland Impact: Type None Area				
Is the wetland a separate hydraulic system? <u>No</u> If no	ot, whe	ere doe	es the wetland lie in the drai	nage basin? Lowe	er	Evaluation Based on: Office 🗌 Field 🔳
How many tributaries contribute to the wetland? 1	list)	Corps manual wet land delineation completed? Y				
	Suita	bility	y Rational	Principal		
Function/Value	Y		(Reference #)*	Function(s)/	Value(s)	Comments
Groundwater Recharge/Discharge		$\checkmark$				
Flood flow Alteration	$\checkmark$		5, 10, 13, 18	Yes		
Fish and Shellfish Habitat		$\checkmark$				
V/ Sediment/Toxicant Retention			1, 2, 4, 9, 10, 16			
Nutrient Removal			3, 4, 9, 10			
Production Export			1, 7			
Sediment/Shoreline Stabilization	$\checkmark$		2, 3, 4, 6, 12, 14, 15	Yes		
🖢 Wildlife Habitat			6, 8, 13			
<b>A</b> Recreation						
Educational/Scientific Value						
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland is located along the bank of Pocono Creek (S-3-00).

Total area of Wetland 1.19 Human made? Yes I	oitat island"? <u>No</u>	Wetland I.D. W-3-09				
Adjacent land use <u>Maint.</u> <sup>Yd</sup> Distance to nearest roadway		Prepared by: <u>CCS</u> Date <u>10/22/13</u>				
Dominant wetland systems present <u>PEM/SS</u> Contiguous		Wetland Impact: Type <u>None</u> Area				
Is the wetland a separate hydraulic system? <u>No</u> If no	wer	Evaluation Based on: Office 🗆 Field 🔳				
How many tributaries contribute to the wetland? 1	ed list)	Corps manual wet land delineation completed? Y $\blacksquare$ N $\Box$				
	Suita	ıbilit	y Rational	Principal		
Function/Value	Y		(Reference #)*	Function(s	)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		4, 8, 13, 15	Yes		
Flood flow Alteration	$\checkmark$		1, 5, 6, 7, 8, 9, 10, 13, 14, 18			
Fish and Shellfish Habitat	$\checkmark$		2, 4, 8, 10, 14, 17			
V/ Sediment/Toxicant Retention		$\checkmark$				
Nutrient Removal		$\checkmark$				
Production Export			1, 2, 4, 7, 8, 10, 12			
Sediment/Shoreline Stabilization	$\checkmark$		1, 3, 4, 12, 14			
🖢 Wildlife Habitat	$\checkmark$		8, 9, 10, 13, 15, 17, 19, 20, 21	Yes		
A Recreation		$\checkmark$				
Educational/Scientific Value		<b>√</b>				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland is located behind a township maintenance yard.

Total area of Wetland 0.12 Human made? Yes	"habitat island"? <u>No</u>	Wetland I.D. W-3-10				
Adjacent land use <u></u> Distance to nearest roadway		Prepared by: <u>CCS</u> Date 10/22/13				
Dominant wetland systems present PFO/EM Contiguous		Wetland Impact: Type <u>None</u> Area				
Is the wetland a separate hydraulic system? <u>No</u> If r	? Lower	Evaluation Based on: Office 🗌 Field 🔳				
How many tributaries contribute to the wetland? 1	Corps manual wet land delineation completed? Y $\blacksquare$ N $\Box$					
	Suita	bility	y Rational	Princip	al	
Function/Value	Y	Ν	(Reference #)*	Functio	on(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		2, 7, 13	Yes		
Floodflow Alteration		$\checkmark$				
Fish and Shellfish Habitat		$\checkmark$				
V/ Sediment/Toxicant Retention		$\checkmark$				
Nutrient Removal	$\checkmark$		3, 5, 14			
Production Export			1			
Sediment/Shoreline Stabilization		$\checkmark$				
🖢 Wildlife Habitat	$\checkmark$		6, 8, 19			
<b>A</b> Recreation		$\checkmark$				
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland is located on a residential property as part of a spring house ruin.\*Refer to backup list of numbered considerations.

Total area of Wetland 0.08 Hu man made? No I	s wet la	and pa	rt of a wild life corridor? Yes	or a "ha	bitat island"? <u>No</u>	Wetland I.D. <u>W-3-11</u>			
Adjacent land use <u>Residenti</u> Distance to nearest roadway		Prepared by: <u>CCS</u> Date 10/22/13							
Dominant wetland systems present <u>PEM</u> Contiguous		Wetland Impact: Type None Area							
Is the wetland a separate hydraulic system? <u>No</u> If n	ower	Evaluation Based on: Office 🗌 Field 🔳							
How many tributaries contribute to the wetland? $2$	How many tributaries contribute to the wetland? $2$ Wildlife & vegetation diversity/abundance (see attached list)								
	Suita	ability	y Rational	Principal		completed? Y 🔳 N 🗌			
Function/Value	Y	N	(Reference #)*	Function(	s)/Value(s)	Comments			
Groundwater Recharge/Discharge	$\checkmark$		2, 4, 7, 8, 13	Yes					
Flood flow Alteration	$\checkmark$		6, 8, 9, 10, 11, 13	Yes					
Fish and Shellfish Habitat		$\checkmark$							
V/ Sediment/Toxicant Retention			2, 10, 14, 16						
Nutrient Removal	$\checkmark$		3, 8, 9, 10, 11, 12						
Production Export	$\checkmark$		1, 2, 4, 7						
Sediment/Shoreline Stabilization	$\checkmark$		1, 3, 4						
🖢 Wildlife Habitat			7, 8, 17, 19, 20, 21						
A Recreation		$\checkmark$							
Educational/Scientific Value		$\checkmark$							
tuniqueness/Heritage									
Visual Quality/Aesthetics		$\checkmark$							
ES Endangered Species Habitat		V							
Other									

Notes: Wetland is located on a residential property.

Total area of Wetland 0.04 Hu man made? No I	abitat island"? <u>No</u>	Wetland I.D. W-3-12							
Adjacent land use <u>Residenti</u> Distance to nearest roadway		Prepared by: <u>CCS</u> Date 10/22/13							
Dominant wetland systems present <u>PEM/FO</u> Contiguous		Wetland Impact: Type <u>None</u> Area							
Is the wetland a separate hydraulic system? <u>No</u> If no	ot, whe	ere do	es the wetland lie in the drai	nage basin? <u> </u>	ower	Evaluation Based on: Office 🗌 Field 🔳			
How many tributaries contribute to the wetland? $2$	How many tributaries contribute to the wetland? <u>2</u> Wildlife & vegetation diversity/abundance (see attached list)								
	Suita	abilit	y Rational	Principal		completed? Y 🔳 N 🗌			
Function/Value	Y		(Reference #)*		(s)/Value(s)	Comments			
Groundwater Recharge/Discharge	$\checkmark$		2, 4, 7, 8, 13	Yes					
Flood flow Alteration	$\checkmark$		6, 8, 9, 10, 11, 13	Yes					
Fish and Shellfish Habitat		$\checkmark$							
V/ Sediment/Toxicant Retention	$\checkmark$		2, 10, 14, 16						
Nutrient Removal			3, 8, 9, 10, 11, 12						
Production Export			1, 2, 4, 7						
Sediment/Shoreline Stabilization	<b>v</b>		1, 3, 4						
🖢 Wildlife Habitat			7, 8, 17, 19, 20, 21						
<b>A</b> Recreation		$\checkmark$							
Educational/Scientific Value		$\checkmark$							
tuniqueness/Heritage		$\checkmark$							
Visual Quality/Aesthetics		V							
ES Endangered Species Habitat		$\checkmark$							
Other									

Notes: Wetland is located on a residential property.

Total area of Wetland 0.02 Human made? Yes I	"habitat island"? <u>No</u>	Wetland I.D. <u>W-3-13</u>				
Adjacent land use <u></u> Distance to nearest roadway of	Prepared by: <u>CCS</u> Date <u>10/22/13</u>					
Dominant wetland systems present <u>PEM</u> Contiguous		Wetland Impact: Type <u>None</u> Area				
Is the wetland a separate hydraulic system? <u>No</u> If no	? Lower	Evaluation Based on: Office 🗌 Field 🔳				
How many tributaries contribute to the wetland?	tached list)	Corps manual wetland delineation completed? Y $\blacksquare$ N $\Box$				
	Suita	bilit	y Rational	Princip	al	
Function/Value	Y	•	(Reference #)*		on(s)/Value(s)	Comments
Groundwater Recharge/Discharge			2, 13	Yes		
Flood flow Alteration		$\checkmark$				
Fish and Shellfish Habitat		$\checkmark$				
V/ Sediment/Toxicant Retention	$\checkmark$		2			
Nutrient Removal	$\checkmark$		3, 9, 10			
Production Export	$\checkmark$		1, 2			
Sediment/Shoreline Stabilization		$\checkmark$				
🖢 Wildlife Habitat	$\checkmark$		7, 8, 19, 21			
A Recreation		$\checkmark$				
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics		$\checkmark$				
ES Endangered Species Habitat		$\checkmark$				
Other						

Notes: Wetland is located on a highway (I-80) embankment.

Total area of Wetland 0.474 Human made? No Is	s wet la	ind pa	rt of a wild life corridor? Yes	or a '	"habitat island"? <u>No</u>	Wetland I.D. W-3-14
Adjacent land use <u>Residenti</u> Distance to nearest roadway of		Prepared by: <u>MLL</u> Date 06/06/14				
Dominant wetland systems present PFO/SS Contiguous		Wetland Impact: Type <u>None</u> Area				
Is the wetland a separate hydraulic system? <u>No</u> If no	ot, whe	ere doe	es the wetland lie in the drain	nage basin'	? Lower	Evaluation Based on: Office 🔳 Field 🔳
How many tributaries contribute to the wetland?	tached list)	Corps manual wetland delineation completed? $Y \blacksquare N \Box$				
	Suita	bility	y Rational	Princip	al	
Function/Value	Y		(Reference #)*		n(s)/Value(s)	Comments
Groundwater Recharge/Discharge	$\checkmark$		2, 4, 7, 8, 10, 13	Yes		
Flood flow Alteration	$\checkmark$		5, 6, 7, 8, 9, 10, 13, 18	Yes		
Fish and Shellfish Habitat		$\checkmark$	1, 2			
V Sediment/Toxicant Retention	$\checkmark$		4, 9, 10, 13, 15, 16	Yes		
Nutrient Removal		$\checkmark$	7, 8, 9			
Production Export		$\checkmark$	1, 2, 7			
Sediment/Shoreline Stabilization						
🖢 Wildlife Habitat			1, 3, 6, 7, 8, 13, 19, 21	Yes		
A Recreation		$\checkmark$				
Educational/Scientific Value		$\checkmark$				
tuniqueness/Heritage		$\checkmark$				
Visual Quality/Aesthetics	$\checkmark$		3, 6, 8, 12			
ES Endangered Species Habitat		$\checkmark$				
Other						

## **Appendix D**

# **Project Area Soil Descriptions**

### **Appendix D: Project Area Soil Descriptions**

Soil Name	Soil Symbol	Slope	<b>Parent Material Setting</b>
Alluvial land	As	0 to 3%	Alluvium
Bath very stony silt loam	BbB, BbC	0 to 8%, 8 to 25%	Loamy till derived mainly from gray and brown siltstone, sandstone, and shale
Benson-Rock outcrop complex	BeC, BeF	8 to 25% 25-70%	Loamy till
Braceville gravelly loam	BrB	3 to 8%	Coarse-loamy outwash
Chenango gravelly loam	ChA, ChB	0 to 3%, 3 to 8%	Gravelly outwash
Chippewa and Norwich extremely stony soils*	CnB	0 to 8%	Fine-loamy till derived from sandstone and siltstone
Cut and fill land	Су	0 to 25%	Man made and altered materials from mixed rock types
Pit, Shale, and Gravel	Gp		
Holly silt loam*	Но	0 to 3%	Alluvium derived from sandstone and shale
Lordstown channery silt loam	LsD	15 to 25%	Coarse-loamy till derived from sandstone and siltstone
Philo silt loam	Ph	0 to 3%	Coarse-loamy alluvium derived from sandstone and siltstone
Pope silt loam	Po, Pp	0 to 3%	Coarse-loamy alluvium derived from sandstone and siltstone
Rexford gravelly silt loam*	ReA, ReB	0 to 3%, 3 to 8%	Coarse-loamy outwash derived from sandstone and shale
Sheffield silt loam*	Sh	0 to 3%	Till
Volusia gravelly silt loam	VoB	3 to 8%	Fine-loamy basal till derived from sandstone and siltstone
Water	W	0%	Rivers streams ponds
Wyoming gravelly sandy loam	WyA, WyB, WyC WyD WyE	0 to 3%, 3 to 8%, 8 to 15% 15-25% 25-70%	Sandy and gravelly glaciofluvial deposits derived from sandstone and siltstone

Source: Natural Resources Conservation Service, Web Soil Survey, 2014. \*Hydric soil.