



# Aquatic Resources Report

December 2023

**US 6219, Section 050**

**Transportation Improvement Project**

***Meyersdale, PA to Old Salisbury Road, MD***



# Table of Contents

<b>ATTACHMENTS.....</b>	<b>II</b>
<b>APPENDICES.....</b>	<b>II</b>
<b>1.0 INTRODUCTION .....</b>	<b>1-1</b>
1.1 Project Description .....	1-1
1.2 Study Area Description .....	1-1
<b>DETAILED ALTERNATIVES.....</b>	<b>1-1</b>
1.2.1 No Build Alternative.....	1-1
1.2.2 Proposed Roadway Layout .....	1-2
1.2.3 Segment 1 DU-E .....	1-2
Mason-Dixon Highway .....	1-2
Hunsrick Road Extension.....	1-3
Mountain Road .....	1-3
Clark Road.....	1-3
1.2.4 Segment 2 DU.....	1-3
1.2.5 Segment 2 E .....	1-4
1.2.6 Segment 3 DU-E .....	1-4
1.2.7 Segment 3 DU-E Shift.....	1-4
<b>2.0 METHODOLOGY .....</b>	<b>2-5</b>
2.1 Review of Existing Data / Literature Review .....	2-5
2.2 Wetland Delineation Methodology.....	2-5
<b>3.0 RESULTS.....</b>	<b>3-8</b>
3.1 Literature Review Results .....	3-8
3.1.1 Watershed and Land Use.....	3-8
3.1.2 Topography .....	3-9
3.1.3 Soils.....	3-9
3.1.4 National Wetlands Inventory.....	3-13
3.1.5 FEMA-Designated Floodplains.....	3-14
3.2 Field Investigation Results .....	3-15
3.2.1 Nontidal Wetlands .....	3-15
3.2.2 Waters of the United States (WUS) Systems .....	3-22
<b>4.0 CONCLUSIONS .....</b>	<b>4-30</b>
<b>5.0 REFERENCES .....</b>	<b>5-31</b>



## ATTACHMENTS

- ATTACHMENT 1: Site Location Map
- ATTACHMENT 2: USGS 7.5' Topographic Map
- ATTACHMENT 3: Soils Map
- ATTACHMENT 4: National Wetlands Inventory (NWI) Map
- ATTACHMENT 5: Q3 Flood Map

## APPENDICES

- APPENDIX A: Aquatic Resource Delineation Map
- APPENDIX B: Wetland Determination Data Forms –Eastern Mountains and Piedmont
- APPENDIX C: Stream Features Field Data Sheets
- APPENDIX D: Study Area Photographs
- APPENDIX E: Pennsylvania Aquatic Resources – Trout Waters

## 1.0 INTRODUCTION

### 1.1 Project Description

The Pennsylvania Department of Transportation (PennDOT) and the Maryland Department of Transportation State Highway Administration (MDOT SHA) in cooperation with the Federal Highway Administration (FHWA) are proposing a 6.5-mile, 4 lane, limited access highway from the newly constructed portion of US 219 in Grantsville, Garrett County, Maryland to the Meyersdale Bypass in Meyersdale, Somerset County, Pennsylvania. To support this effort, KCI Technologies, Inc. (KCI) and NTM Engineering, Inc. (NTM) conducted a wetland and watercourse investigation to identify the presence of and determine the potential for impacts to wetlands and watercourse systems that may result from this project. KCI and NTM reviewed readily available information for the study area and conducted a field investigation to verify these findings.

### 1.2 Study Area Description

The project study area includes four alternative segments that will be used to identify an alignment for a 6.5-mile (1.5 miles in Maryland, 5 miles in Pennsylvania) proposed highway extending from the newly constructed portion of US 219 in Grantsville, Maryland to the Meyersdale Bypass in Meyersdale, Pennsylvania. The Maryland portion of the study area traverses forested and agricultural property. The Pennsylvania portion of the study area traverses agricultural, open land, and forested land, including State Game Lands #231. A map depicting the alternatives is enclosed as Attachment 1 to this report.

## DETAILED ALTERNATIVES

The proposed project alternatives have been divided into three segments, Segment 1, Segment 2, and Segment 3. Segment 1 is also known as Segment 1 DU-E. Segment 2 has two segment options, Segment 2 DU and Segment 2 E, and Segment 3 has two segment options, Segment 3 DU-E and Segment 3 DU-E Shift. When combined, these segments make up the four alternatives under consideration. The segments and a No Build Alternative are being evaluated within the study area. The alternatives under consideration are the following:

#### No Build Alternative

Segment 1 DU-E + Segment 2 DU + Segment 3 DU-E  
Segment 1 DU-E + Segment 2 DU + Segment 3 DU-E Shift  
Segment 1 DU-E + Segment 2 E + Segment 3 DU-E  
Segment 1 DU-E + Segment 2 E + Segment 3 DU-E Shift

### 1.2.1 No Build Alternative

The No Build Alternative involves taking no action, except routine maintenance, along US 219. The existing two-lane alignment of US 219 between Meyersdale, Pennsylvania and Garrett County, Maryland would remain. No new alignments or additional roadway would be constructed.

## 1.2.2 Proposed Roadway Layout

Segment 1 DU-E, Segment 2 DU, Segment 2 E, Segment 3 DU-E, and Segment 3 DU-E Shift are being evaluated with a consistent roadway layout, also known as a typical section. The typical section for each segment provides a four-lane divided limited access highway with 12' wide travel lanes, 8' wide inside shoulders, and 10' wide outside shoulders. The width of the median between the inside edges of northbound and southbound travel lanes is 60'. In cut sections, where excavation will be required for construction, a proposed swale is located 15' outside the edge of the roadway shoulder. The backslope of the swale extends for 5' at a 4:1 slope, then continues at a 2:1 slope, until intersecting the existing ground. In fill sections, where fill must be placed for construction, a 10:1 slope extends from the outside roadway shoulder for 6', then continues at a 2:1 slope until intersecting existing ground.

## 1.2.3 Segment 1 DU-E

Segment 1 DU-E is a three-mile portion of proposed alternative, beginning at the north end of the study area, at the existing Meyersdale interchange. The segment includes portions of the existing US 219 roadway and the surrounding area, including along Mountain Road and Hunsrick Road. The segment continues to the south of Hunsrick Road, where it diverges from existing US 219 and crosses Clark Road. The segment then turns slightly west, avoiding the Pennsylvania State Gamelands 231. The segment then traverses along the bottom of Meadow Mountain. Stormwater management facilities have also been incorporated into the design.

Improvements to the existing US 219 roadway (Mason-Dixon Highway), Hunsrick Road Extension, Mountain Road, and Clark Road are proposed as part of the construction of Segment 1 DU-E. These improvements are intended to ensure that local traffic has continued access. The scope of these proposed improvements is outlined below.

### Mason-Dixon Highway

The Mason-Dixon Highway (T-355) will be improved between Hunsrick Road and the US 219 Meyersdale Interchange in accordance with PennDOT's Resurfacing, Restoration, and Rehabilitation (3R) design criteria, using a design speed transition from 55 MPH to 35 MPH. The improvement corridor is roughly 1.3-miles in length, starting at the south near Hunsrick Road and ending at the US 219 Meyersdale Interchange.

Prior to the opening of the Meyersdale Bypass, Mason-Dixon Highway carried US 219. After the Meyersdale Bypass opened, PennDOT transferred ownership and maintenance of Mason-Dixon Highway to Summit Township. Following completion of the new US 219 alternative, ownership of Mason-Dixon Highway is to be transferred back to PennDOT as part of re-routed traffic patterns in the area.



### **Hunsrick Road Extension**

Improvements made to tie the new US 219 alternative into existing US 219 necessitates the removal of the existing Hunsrick Road Bridge (SR 2102). Due to geometric and intersection sight distance constraints at the intersection of Hunsrick Road (T-355) and Mason-Dixon Highway (T-355), it was determined not to replace the Hunsrick Road Bridge and terminate Hunsrick Road on the east side of US 219.

As a result of the Hunsrick Road Bridge removal, a new roadway will be constructed; the Hunsrick Road Extension. This new roadway will connect existing Hunsrick Road with Fike Hollow Road (T-363) and generally run parallel to the new US 219 alternative along the eastern side. This new connector roadway will provide access from Hunsrick Road to US Business Route 219 (SR 2047) near the Meyersdale Interchange.

The proposed typical section for Hunsrick Road Extension includes 2- 10' travel lanes and 4' outside shoulders. The design speed is anticipated to be 25 miles per hour.

### **Mountain Road**

Mountain Road (T-824) currently extends north from the intersection with Hunsrick Road to a cul-de-sac adjacent to existing US 219. With the associated improvements of the Hunsrick Road Extension, the northern end of Mountain Road will be connected to Hunsrick Road Extension and the existing cul-de-sac will be removed. The existing intersection of Mountain Road with Hunsrick Road will be maintained.

To avoid the steep grade (14%) on existing Mountain Road, a portion of Mountain Road is to be closed to traffic. Access to property along Mountain Road will be maintained and cul-de-sacs will be placed where the road will be closed. As noted above, the northern segment of Mountain Road will be accessible from the Hunsrick Road Extension while the southern segment of Mountain Road will be accessible from the existing intersection with Hunsrick Road.

### **Clark Road**

Clark Road (T-353) extends west from Mountain Road (T-824) to existing US 219. Due to topographical and geometric constraints, providing a grade separated crossing of the new US 219 alternative was not practical. It was determined Clark Road should be bisected where it crosses the new alternative of US 219. A cul-de-sac will be placed at each end of the roadway where it intersects the US 219 right-of-way. The eastern side of Clark Road will maintain access to US Business Route 219 near the Meyersdale Interchange via Mountain Road, Hunsrick Road Extension, and Fike Hollow Road.

## **1.2.4 Segment 2 DU**

Segment 2 DU turns west from Segment 1 DU-E, towards existing US 219, and is sited between existing US 219 and Segment 2 E for about three miles. Segment 2 DU runs west across Piney Run Road and Piney Creek until it crosses Greenville Road, about 0.5 miles southeast of Salisbury Borough, and turns south. Segment 2 DU rejoins Segment

2 E at the Pennsylvania/Maryland border. From the Pennsylvania/Maryland border, Segment 2 DU and Segment 2 E angle further towards existing US 219. About 0.1 mile north of the Pennsylvania/Maryland border, there are preliminary plans for a PennDOT maintenance facility along Segment 2 DU, on the western side of the proposed US 219 alternative, with access to US 219 from the southbound lanes. Stormwater management facilities have also been incorporated into the design.

### 1.2.5 Segment 2 E

After separating from Segment 1 DU-E, Segment 2 E continues southwest for approximately one mile before spanning Piney Run Road. As Segment 2 E crosses Piney Creek and Greenville Road, it angles west towards existing US 219 and Segment 2 DU for 1.3 miles. Subsequently, Segment 2 E rejoins Segment 2 DU at the Pennsylvania/Maryland border. Segment 2 E and Segment 2 DU follow approximately the same path for approximately 0.8 miles, from the Pennsylvania/Maryland border until the beginning of Segment 3. Approximately 0.1 mile north of the Pennsylvania/Maryland border, there are preliminary plans for a PennDOT maintenance facility along Segment 2 E, along the eastern side of the proposed alternative, with access to US 219 from the northbound lanes. Stormwater management facilities have also been incorporated into the design.

### 1.2.6 Segment 3 DU-E

Segment 3 DU-E continues the proposed alternative south of the Pennsylvania/ Maryland border and ties back into the newly constructed section of US 219, south of Old Salisbury Road. The Segment 3 DU-E alternative is located approximately 0.05 miles east of Old Salisbury Road.

### 1.2.7 Segment 3 DU-E Shift

Segment 3 DU-E Shift is angled southwest, similarly to Segment 3 DU-E, and ties into the newly constructed section of US 219 at the same location. However, Segment 3 DU-E Shift is shifted eastward, farther from Old Salisbury Road, while avoiding impacts to the Little Meadows Historic District to the extent possible.

## 2.0 METHODOLOGY

### 2.1 Review of Existing Data / Literature Review

Prior to conducting field activities, KCI reviewed readily available primary source materials including USGS maps, National Wetland Inventory (NWI) maps, Federal Emergency Management Agency (FEMA) floodplain data, and the city/county soil survey to determine the presence or absence of regulated natural resources (wetlands and streams) within the study area. KCI and NTM reviewed the Pennsylvania Chapter 93 Designated Use Classes (PA Code, Title 25, Chapter 93) as well as the Maryland Code of Regulations Stream Segment Designations (COMAR 26.08.02.08) for stream use class and wild/stocked trout designations for streams within the project corridor. NTM reviewed *Keystone Canoeing: A Guide to Canoeable Waters of Eastern Pennsylvania Paperback* (Gertler, 2004) to identify any navigable streams within the project corridor in Pennsylvania.

### 2.2 Wetland and Watercourse Methodology

KCI and NTM performed a field reconnaissance for the entire study area to determine the presence or absence of wetland areas from Spring 2022 to Spring 2023. Based upon this review, KCI and NTM determined that normal conditions were present on the corridor and that the "Routine Determination" method would be appropriate in order to identify wetland boundaries within the study area. In the field, wetland delineations were conducted using the criteria outlined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region* (Environmental Laboratory, 2012).

During the course of the field investigation, dominant plant species within suspected wetland areas were identified and recorded for each stratum present. The United States Fish and Wildlife Service (USFWS) 2021 National Wetland Plant List (Lichvar, 2021) was used to determine the indicator status of the vegetation found within each community.

KCI and NTM then characterized the plant community as hydrophytic or upland based upon the results of the Dominance Test and the Prevalence Index worksheets within the Wetland Determination Data Form – Eastern Mountains and Piedmont Region.

Hydrophytic Vegetation Indicator Status	
<b>UPL</b>	Plants that always occur in non-wetland areas
<b>FACU</b>	Plants that usually occur in non-wetland areas
<b>FAC</b>	Plants that can be found in non-wetland areas or wetland areas
<b>FACW</b>	Plants that usually occur in wetland areas
<b>OBL</b>	Plants that always occur in wetland areas
<b>NI/NS</b>	Plants that have no indicator status



KCI and NTM assessed wetland hydrology within the study area based on the presence of one primary or two or more secondary hydrology indicators. Surface water inundation, depth to soil saturation, drift lines, water marks, and sediment deposits are some of the primary indicators listed in the Wetland Determination Data Form – Eastern Mountains and Piedmont Region. Secondary indicators include surface soil cracks, a sparsely vegetated concave surface, drainage patterns, and moss trim lines, as well as other less commonly found indicators.

Soil pits were typically excavated to a depth of approximately 18-24 inches, barring refusal. KCI and NTM recorded soil texture and the color of the matrix and any concretions or soft masses within a representative soil sample were assigned hue, value, and chroma utilizing the Munsell Soil Color Charts (Munsell, 2000). All soil samples were thoroughly investigated for the presence of redoximorphic features and/or hydric soil indicators included in Field Indicators of Hydric Soils (NRCS, 2018) and the Wetland Determination Data Form – Eastern Mountains and Piedmont Region. KCI and NTM then classified soils as hydric or non-hydric based upon the presence or absence of hydric soil characteristics and indicators.

KCI and NTM determined areas to be wetlands once all three wetland parameters (vegetation, hydrology, and soils), as described above, were identified (Environmental Laboratory, 1987 and 2012). When wetlands and streams were identified in the field, their boundaries were flagged along the wetland/upland interface or along the ordinary high water mark, respectively. Boundaries were marked in the field using consecutively numbered flagging tape, and flag locations were subsequently field located utilizing a total station survey apparatus. A map series showing delineated wetlands and waterways is included as Appendix A to this report.

Vegetation, hydrologic, and soils data collected in the field, as well as information derived from the pre-fieldwork data review, were transferred to Wetland Determination Data Forms - Eastern Mountains and Piedmont Region in accordance with USACE protocols (2012). Wetlands Functions and Values were identified to the use of *The Highway Methodology Workbook Supplement* in accordance with the USACE Descriptive Method for Wetlands. Appendix B includes the Wetland Determination Data Forms for the upland and wetland sample plot locations and Wetland Functions and Values forms. Appendix C includes Stream Features Datasheets for WUS systems throughout the study area.

Representative photographs were taken throughout the study area and specifically of wetlands and stream systems in order to document field conditions at the time of the delineation. These photographs have been included as Appendix D to this report. Note that due to alignment refinements, some of the initial wetlands surveyed are no longer within the current limits of disturbance and additional wetlands were surveyed and photographed after the initial delineation. As a result, photographs may not appear to be in consecutive order.

Additional resources were used for the determination of wetlands and waterways based on state guidance, identified below.

## Pennsylvania

Wetlands identified in Pennsylvania were assessed using the *USACE Highway Methodology Workbook Supplement* (Corps Descriptive Method for Functions and Values). The Pennsylvania Wetland Condition Level 2 Rapid Assessment Protocol (PA DEP, 2016) will be used to assess wetlands within the preferred alignment when that alignment is chosen. This guidance is used to assess the condition of wetland resources to meet regulatory requirements under 25 Pa. Code Chapter 105.

Field identified stream channels in Pennsylvania were assessed based on the US EPA Bioassessment Protocols for Physical Characterization (Protocols), regardless of stream length. The qualitative data from the protocols were collected; quantitative data (e.g., temperature, pH, turbidity) were not documented. The US EPA Bioassessment Protocols for Physical Characterization were used for streams that, based on the presented alignments, may be impacted. The Pennsylvania Level 2 Rapid Assessment Protocol (PA DEP, 2016) will be used to assess streams within the preferred alignment when that alignment is chosen.

## Maryland

This project is subject to COMAR standards 26.17 and 26.23. COMAR standard 26.17 includes erosion and sediment control and stormwater management to reduce and manage stormwater runoff necessary to decrease stream erosion, pollution, and flooding. COMAR standard 26.23 is known as the Maryland Nontidal Wetlands Act. Under this standard, permits are required for activities which disturb the nontidal wetland area and/or the associated 25-foot wetland buffer, or the 100-foot wetland buffer area for wetlands of special state concern.

Waters of the US were classified based on the Rapanos Guidance of 2008. The Environmental Protection Agency (EPA) and USACE will take jurisdiction over traditional navigable waters (larger perennial streams) and non-navigable tributaries to traditional navigable waters which exhibit seasonal to year-round flow. Field identified stream channels that are less than 300 feet were evaluated using the US EPA Rapid Bioassessment Protocols for Physical Characterization. Stream lengths longer than 300 feet were evaluated using the Function Based Rapid Stream Assessment with numeric scoring (EPA, 2012).

## 3.0 RESULTS

### 3.1 Literature Review Results

#### 3.1.1 Watershed and Land Use

##### Pennsylvania

The Pennsylvania portion of the study area is located within the Tub Mill Run-Casselman River, Little Piney Creek-Piney Creek, and Miller Run-Casselman River (HUC 050200060405/ 050200060404/050200060406) watersheds and is within the larger Youghiogheny (HUC 05020006) watershed. Meadow Run, Miller Run, Piney Creek, and other tributaries to the Casselman River flow to the study area. The Pennsylvania Chapter 93 Designated Use for Casselman River and all its tributaries in this area is “WWF,” pursuant to which they are protected for “Warmwater Fishes” (PA Code, Title 25, Chapter 93). According to the Pennsylvania 303(d) list of impaired waterways, Meadow Run, Piney Run, Casselman River, and Miller Run are classified as Category 2, “Supporting” for Streams Aquatic Life Use. Two unnamed tributaries to Casselman River are classified as Category 5, “Impaired” for Streams Aquatic Life Use due to acid mine drainage and metals. One stream within the project area, Piney Creek, identified below as S32, is classified as a wild trout and stocked trout stream. None of the streams are listed as navigable waters and an ATON plan is not needed for this project.

A review of the Pennsylvania Emergency Management Agency (PEMA) orthoimagery (PEMA 2018) indicated the study area and its immediate surroundings, is classified as agricultural, forested, and residential, and includes State Game Lands #231.

##### Maryland

The Maryland portion of the study area is located within the Casselman River (05020204) watershed. Tributaries to Meadow Run and Casselman River cross the study area. The Maryland Surface Water Use Designation for streams within the study area is Use I, pursuant to which they are protected for “Water Contact Recreation and Protection of Nontidal Warmwater Aquatic Life” (COMAR 26.08.02.08). As warmwater streams, they do not support trout. In-stream work may not be conducted in Use I waters during the period of March 1 to June 15, inclusive, during any year (COMAR 26.08.02.11). Additionally, KCI reviewed Maryland’s Tier II High Quality Waters map to identify whether the study area is within a Tier II watershed. According to review of the Tier II High Quality Waters map, the study area is not within a Tier II watershed (MDE, continuously updated). According to the Maryland 303(d) list of impaired waterways, the Casselman River watershed is listed as Category 4a – impaired, TMDL complete for pH (acid mine drainage) and Category 5 – impaired, TMDL needed for ions (Chlorides).

The Maryland Department of Planning, Land Use/Land Cover geographic information systems (Maryland Department of Planning, 2011) indicated the study area and its immediate surroundings, is classified as low-density residential, medium-density residential, commercial, institutional, cropland, deciduous forest, evergreen forest, mixed forest, and large lot subdivision - forest.



### 3.1.2 Topography

#### Pennsylvania

The study area is located within the Appalachian Plateaus Physiographic Province. According to a review of the Meyersdale, Pennsylvania 7.5' Topographic Quadrangle (United States Geological Survey, 2019) and other sources, the topography within the study area is moderately to steeply sloping to the west. Elevations range from approximately 1,980 feet above mean sea level (MSL) in the northern extents of Segment 1 DU-E to 2,600 feet above MSL in the northern extents of Segment 2 E. A copy of the relevant USGS quadrangle map for the study area is included as Attachment 2 to this report.

#### Maryland

The study area is located within the Appalachian Plateaus Physiographic Province. According to a review of the Avilton, Maryland 7.5' Topographic Quadrangle (United States Geological Survey, 2019) and other sources, the topography within the study area is moderately sloping to the north and south. Elevations range from approximately 2,360 feet above MSL in the northern extents of the Maryland portion of Segment 2 E to 2,740 feet above MSL in Segment 3 DU-E Shift. A copy of the relevant USGS quadrangle map for the study area is included as Attachment 2 to this report.

### 3.1.3 Soils

KCI reviewed digital Natural Resource Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) soils data for Somerset County, Pennsylvania and Garrett County, Maryland (NRCS Web Soil Survey, 2023) to identify mapped soils within the alignment alternatives.

A copy of the soil survey map for the study area is included as Attachment 3 to this report.

#### Segment 1 DU-E

##### *Pennsylvania*

According to the NRCS SSURGO soils data for Somerset County, Pennsylvania, 28 distinct soil units are present within this segment of the study area:

- Allegheny silt loam, gravelly substratum, 3-8% slopes (AhB)
- Armagh silt loam (Ar)\*
- Atkins silt loam, 0-3% slopes (At)\*
- Berks channery silt loam, 8-15% slopes (BeC)
- Berks channery silt loam, 15-25% slopes (BeD)
- Berks-Weikert channery silt loams, 8-15% slopes (BkC)
- Ernest silt loam, 3-8% slopes (ErB)
- Ernest silt loam, 8-15% slopes (ErC)
- Fluvaquents (FV)\*
- Hazelton channery sandy loam, 8-15% slopes (HaC)
- Hazelton channery sandy loam, 8-25% slopes, extremely stony (HbD)
- Hazelton channery sandy loam, 8-25% slopes, extremely bouldery (HzD)

- Berks-Weikert channery silt loams, 15-25% slopes (BkD)
- Berks and Weikert soils, 25-70% slopes (BkF)
- Buchanan silt loam, 0-8% slopes, extremely stony (BxB)
- Buchanan silt loam, 8-25% slopes, extremely stony (BxD)
- Cavode silt loam, 3-8% slopes (CaB)
- Cookport loam, 3-8% slopes (CoB)
- Cookport loam, 0-8% slopes, very stony (CpB)
- Cookport loam, 8-25% slopes, very stony (CpD)
- Hazleton channery sandy loam, 25-60% slopes, extremely boulder (HzF)
- Nolo very stony loam, 0-8% slopes (NsB)\*
- Rayne-Gilpin channery silt loams, 3-8% slopes (RgB)
- Rayne-Gilpin channery silt loams, 8-15% slopes (RgC)
- Rayne-Gilpin channery silt loams, 15-25% slopes (RgD)
- Rayne-Gilpin very stony silt loams, 8-25% slopes (RpD)
- Wharton silt loam, 3-8% slopes (WhB)
- Wharton silt loam, 8-15% slopes (WhC)

*\*Denotes hydric soils*

## Segment 2 DU

### *Pennsylvania*

According to the NRCS SSURGO soils data for Somerset County, Pennsylvania, 25 distinct soil units are present within this segment of the study area:

- Berks channery silt loam, 15-25% slopes (BeD)
- Berks-Weikert channery silt loams, 8-15% slopes (BkC)
- Berks and Weikert soils, 25-70% slopes (BkF)
- Cavode silt loam, 3-8% slopes (CaB)
- Cavode silt loam, 8-15% slopes (CaC)
- Cavode very stony silt loam, 0-8% slopes (CbB)
- Cookport loam, 0-8% slopes, very stony (CpB)
- Cookport loam, 8-35% slopes, very stony (CpD)
- Hazleton channery sandy loam, 3-8% slopes (HpB)
- Hazleton channery sandy loam, 8-25% slopes, extremely stony (HbD)
- Hazleton channery sandy loam, 8-25% slopes, extremely boulder (HzD)
- Nolo very stony loam, 0-8% slopes (NsB)
- Rayne-Gilpin channery silt loams, 3-8% slopes (RgB)
- Rayne-Gilpin channery silt loams, 8-15% slopes (RgC)
- Rayne-Gilpin channery silt loams, 15-25% slopes (RgD)
- Rayne-Gilpin channery silt loams, 25-65% slopes (RgF)
- Rayne-Gilpin very stony silt loams, 8-25% slopes (RpD)
- Udorthents mine spoil, 8-25% (UDD)
- Udorthents mine spoil, 25-70% slopes (UDF)
- Wharton silt loam, 3-8% slopes (WhB)

- Hazleton channery sandy loam, 25-70% slopes, extremely stony (HbF)
- Hazleton channery sandy loam, 0-8% slopes, extremely bouldery (HzB)
- Wharton silt loam, 8-15% slopes (WhC)
- Wharton very stony silt loam, 3-8% slopes (WvB)
- Wharton very stony silt loam, 8-25% slopes (WvD)

### *Maryland*

According to the NRCS SSURGO soils data for Garrett County, Maryland, seven distinct soil units are present within this segment of the study area:

- Cavode silt loam, 0-8% slopes (CoB)
- Cookport and Ernest very stony silt loam, 0-8% slopes (CuB)
- Cookport and Ernest very stony silt loam, 8-25% slopes (CuD)
- Dekalb and Gilpin very stony loams, 15-25% slopes (DgD)
- Gilpin channery silt loam, 10-20% slopes, moderately eroded (GnC2)
- Stony land, steep (SrF)
- Wharton silt loam, 3-8% slopes (WhB2)

### Segment 2 E

#### *Pennsylvania*

According to the NRCS SSURGO soils data for Somerset County, Pennsylvania, 21 distinct soil units are present within this segment of the study area:

- Albrights silt loam, 0-8% slopes (AgB)
- Cavode silt loam, 3-8% slopes (CaB)
- Chavies silt loam, 0-3% slopes (ChA)
- Cookport loam, 0-8% slopes, very stony (CpB)
- Cookport loam, 8-25% slopes, very stony (CpD)
- Fluvaquents (FV)\*
- Leck kill soils, 25-60% slopes (LmF)
- Nolo very stony loam, 0-8% slopes (NsB)\*
- Purdy silt loam (Pu)\*
- Rayne-Gilpin channery silt loams, 3-8% slopes (RgB)
- Rayne-Gilpin channery silt loams, 8-15% slopes (RgC)
- Rayne-Gilpin channery, 15-25% slopes (RgD)
- Rayne-Gilpin very stony silt loams, 8-25% slopes (RpD)
- Udorthents, mine spoil, 25-70% slopes (UDF)
- Wharton silt loam, 3-8% slopes (WhB)
- Hazleton channery sandy loam, 8-25% slopes, extremely stony (HbD)
- Hazleton channery sandy loam, 25-70% slopes, extremely stony (HbF)
- Hazleton channery sandy loam, 0-8% slopes, extremely bouldery (HzB)



- Hazleton channery sandy loam, 8-25% slopes, extremely bouldery (HzD)
- Hazleton channery sandy loam, 25-60% slopes, extremely bouldery (HzF)
- Wharton very stony silt loam, 3-8% slopes (WvB)

*\*Denotes hydric soils*

### Maryland

According to the NRCS SSURGO soils data for Garrett County, Maryland, nine distinct soil units are present within this segment of the study area:

- Brinkerton and Andover, very stony silt loams, 0-15% slopes (BsC)\*
- Cavode silt loam, 0-8% slopes (CoB)
- Cookport and Ernest, very stony silt loams, 0-8% slopes (CuB)
- Cookport and Ernest, very stony silt loams, 8-25% slopes (CuD)
- Dekalb and Gilpin very stony loams, 15-25% slopes (DgD)
- Gilpin channery silt loam, 10-20% slopes, moderately eroded (GnC2)
- Stony land, steep (SrF)
- Wharton silt loam, 3-8% slopes (WhB2)
- Wharton silt loam, 8-15% slopes (WhC2)

*\*Denotes hydric soils*

### Segment 3 DU-E

#### Maryland

According to the NRCS SSURGO soils data for Garrett County, Maryland, eight distinct soil units are present within this segment of the study area:

- Armagh silt loam (Ar)\*
- Brinkerton and Andover very stony silt loams, 0-15% slopes (BsC)\*
- Cavode silt loam, 0-8% slopes (CoB)
- Cookport and Ernest very stony silt loams, 0-8% slopes (CuB)
- Dekalb and Gilpin very stony loams, 0-15% slopes (DgC)
- Ernest silt loam, 3-8% slopes (ErB)
- Wharton silt loam, 3-8% slopes (WhB2)
- Wharton silt loam, 8-15% slopes (WhC2)

*\*Denotes hydric soils*

### Segment 3 DU-E Shift Maryland

According to the NRCS SSURGO soils data for Garrett County, Maryland, 14 distinct soil units are present within this segment of the study area:

- Armagh silt loam (Ar)\*
- Brinkerton and Andover silt loams, 3-8% slopes (BrB)\*
- Brinkerton and Andover very stony silt loams, 0-15% slopes (BsC)\*
- Calvin and Lehew channery loams, 35-50% slopes (CIE)
- Cavode silt loam, 0-8% slopes (CoB)
- Cookport and Ernest very stony silt loams, 0-8% slopes (CuB)
- Dekalb channery loam, 0-10% slopes (DbB)
- Dekalb channery loam, 10-20% slopes, moderately eroded (DbC2)
- Dekalb and Gilpin very stony loams, 0-15% slopes (DgC)
- Ernest silt loam, 3-8% slopes (ErB)
- Gilpin channery silt loam, 20-35% slopes, moderately eroded (GnD2)
- Gilpin channery silt loam, 20-35% slopes, severely eroded (GnD3)
- Wharton silt loam, 3-8% slopes (WhB2)
- Wharton silt loam, 8-15% slopes (WhC2)

*\*Denotes hydric soils*

### 3.1.4 National Wetlands Inventory

The National Wetlands Inventory (NWI) Maps for Avilton, Maryland and Meyersdale, Pennsylvania (U.S. Fish and Wildlife Service [USFWS], 1981-2019) identify the following types of mapped wetlands within each study area segment (see Attachment 4):

### Segment 1 DU-E Pennsylvania

- Riverine, intermittent, streambed, seasonally flooded (R4SBC)
- Riverine, unknown perennial, unconsolidated bottom, permanently flooded (R5UBH)

### Segment 2 DU Pennsylvania

- Palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded (PSS1C)
- Palustrine, forested, broad-leaved deciduous/needle-leaved evergreen, seasonally flooded/saturated (PFO1/4E)
- Palustrine, unconsolidated bottom, permanently flooded, impounded (PUBHx)
- Palustrine, emergent, phragmites australis, temporarily flooded (PEM5A)
- Riverine, upper perennial, unconsolidated bottom, permanently flooded (R3UBH)

*Maryland*

- Palustrine, unconsolidated bottom, permanently flooded, impounded (PUBHx)

**Segment 2 E**

*Pennsylvania*

- Palustrine, forested, broad-leaved deciduous/needle-leaved evergreen, seasonally flooded/saturated (PFO1/4E)
- Riverine, upper perennial, unconsolidated bottom, permanently flooded (R3UBH)

*Maryland*

- Riverine, unknown perennial, unconsolidated bottom, permanently flooded (R5UBH)

**Segment 3 DU-E**

*Maryland*

No NWI designated wetlands were identified within the Segment 3 DU-E alignment.

**Segment 3 DU-E Shift**

*Maryland*

No NWI designated wetlands were identified within the Segment 3 DU-E shift alignment.

**3.1.5 FEMA-Designated Floodplains**

KCI reviewed Federal Emergency Management Agency (FEMA) Q3 flood data to identify mapped 100-year floodplains within the study area (FEMA Panel Nos. 24023C0080D, 42111C0567D, 42111C0570D, 42111C0705D, and 42111C0710D).

**Segment 1 DU-E**

*Pennsylvania*

Segment 1 DU-E crosses a designated 100-year floodplain associated with Miller Run.

**Segment 2 DU**

*Pennsylvania*

Segment 2 DU crosses a designated 100-year floodplain associated with Piney Creek.

*Maryland*

No designated 100-year floodplains cross Segment 2 DU in Maryland.

## Segment 2 E

Pennsylvania

Segment 2 E crosses a designated 100-year floodplain associated with Piney Creek.

### *Maryland*

No designated 100-year floodplains cross Segment 2 E in Maryland.

## Segment 3 DU-E

Maryland

No designated 100-year floodplains cross Segment 3 DU-E in Maryland.

## Segment 3 DU-E Shift

Maryland

No designated 100-year floodplains cross Segment 3 DU-E Shift in Maryland

## **3.2 Field Investigation Results**

The field investigation performed from Spring 2022 to Spring 2023 located 102 nontidal wetland systems, which included 61 palustrine emergent wetlands, 25 palustrine forested wetlands, 15 palustrine scrub-shrub wetlands, and one palustrine, open water wetland. The investigation also identified 57 perennial streams and 34 intermittent streams, classified as “waters of the U.S.” and 14 ephemeral channels. Information concerning these wetlands and streams is outlined below and included in the appendices to this report.

### **3.2.1 Nontidal Wetlands**

The study area includes palustrine, forested, scrub-shrub, and emergent wetlands. The wetlands were found in various geomorphic positions, usually in the flat stream valley corridors between hillsides, but also appeared as hillside seeps and pocket wetlands. Dominant trees identified within palustrine forested (PFO) wetlands included sweet birch (*Betula lenta*), yellow birch (*Betula alleghaniensis*), silky dogwood (*Cornus amomum*), ironwood (*Carpinus caroliniana* [FAC]), black gum (*Nyssa sylvatica* [FAC]), black willow (*Salix nigra* [OBL]), and red maple (*Acer rubrum* [FAC]). Shrubs were primarily found to be various sapling species of trees noted above, but winterberry (*Ilex verticillata* [FACW]) was noted in some PFO wetlands. Emergent vegetation consisted of jewelweed (*Impatiens capensis* [FACW]), soft rush (*Juncus effusus* [FACW]), fowl blue grass (*Poa palustris*), rice cutgrass (*Leersia oryzoides* [OBL]), boneset (*Eupatorium perfoliatum* [FACW]), sensitive fern (*Onoclea sensibilis* [FACW]), skunk cabbage (*Symplocarpus foetidus*), sweet bugleweed (*Lycopus virginicus* [OBL]), and various *Carex* species.

Soils generally exhibited depleted matrix, redox dark surface, and loamy gleyed matrix indicators and ranged in texture from silt clay loam to clay loam.

Hydrology indicators generally included surface water, high water table, saturation, oxidized rhizospheres on living roots, crayfish burrows, and drainage patterns.

Typical functions and values included groundwater recharge/discharge, sediment/toxicant retention, wildlife habitat, nutrient removal, and floodflow alteration (see Appendix B).

The tables below list the wetlands identified within the study area segments. Some wetlands are located within multiple alignment alternatives. Datasheets are provided in Appendix B and provide additional detail about each wetland system.

### Segment 1 DU-E Pennsylvania

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
W1**	PEM/PFO	W1-1 to W1-36	21,452
W2	PEM	W2-1 to W2-37	3,993
W4**	PSS	W4-1 to W4-7	36
W5**	PEM	W5-1 to W5-18	2,946
W6	PEM	W6-1 to W6-23	6,027
W7	PSS	W7-1 to W7-34	29,352
W7A	PSS	W7A-1 to W7A-4	3,211
W8	PEM	W8-1 to W8-3	376
W9	PEM	W9-1 to W9-20	4,203
W11*	PFO	W11-1 to W11-23	4,676
W12**	PSS	W12-1 to W12-12	2,871
W14	PSS	W14-1 to W14-10	704
W15**	PFO	W15-1 to W15-28	78,647
W16**	PFO	W16-1 to W16-5	720
W17**	PFO/PSS	W17-1 to W17-33, W17-100 to W17-110, W17-200 to W17-207	104,355
W18	PFO	W18-1 to W18-8	2,241
W19**	PSS	W19-1 to W19-16	3,224
W20	PEM	W20-1 to W20-9	6,867



Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
W21	PEM	W21-1 to W21-16	3,791
W22* **	PEM	W22-1 to W22-7	26
W23	PFO	W23-1 to W23-18	4,958
W24*	PEM	W24-1 to W24-7	424
W25*	PFO	W25-1 to W25-11	3,545
W26	PEM	W26-1 to W26-8	935
W27	PFO	W27-1 to W27-9	32,004
W70	PSS	W70-1 to W-70-5	3,902
W71**	PFO	W71-1 to W71-15	7,291
W77**	PEM	W77-1 to W77-24	1,977
W78**	PEM	W78-1 to W78-34	5,148
W78A	PEM	W78A-1 to W78A-7	483
W79	PEM	W79-1 to W79-12	889
W80**	PEM	W80-1 to W80-9	608
W81	PEM	W81-1 to W81-11	14
W83	PSS	W83-1 to W83-10	6
W85**	PEM	W85-1 to W85-4	1,465
W86**	PSS	W86-1 to W86-7	1,785
W87	PSS	W87-1 to W87-4	694
W88	PSS	W88-1 to W88-4	1,252
W89**	PEM/PSS	W89-1 to W89-22-OE, W89A-1 to W89A-5	1,902
W90	PEM	W90-1 to W90-7	40
W91**	PEM	W91-1 to W91-7	508
W94	PFO	W94-1 to W94-10	474

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

## Segment 2 DU Pennsylvania

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
<b>W28*</b>	PFO	W28-1 to W28-26	7,011
<b>W29* **</b>	PFO	W29-1 to W29-31	185
<b>W30*</b>	PFO	W30-1 to W30-49	20,067
<b>W32* **</b>	PEM	W32-1 to W32-9	1,020
<b>W48</b>	PEM	W48-1 to W48-7	1,467
<b>W49</b>	PSS	W49-1 to W49-14	1,647
<b>W50</b>	PFO	W50-1 to W50-9	575
<b>W51</b>	PEM	W51-1 to W51-7	1,049
<b>W53</b>	PEM	W53-1 to W53-6	559
<b>W55</b>	PEM	W55-1 to W55-7	315
<b>W56**</b>	PEM	W56-1 to W56-20	264
<b>W58**</b>	PEM	W58-1 to W58-10	189
<b>W59</b>	PEM	W59-1 to W59-11	3,012
<b>W60</b>	PEM	W60-1 to W60-5	1,292
<b>W61**</b>	PEM	W61-1 to W61-5	886
<b>W62**</b>	PEM	W62-1 to W62-37	27,576
<b>W63</b>	PSS	W63-1 to W63-14	2,313
<b>W64**</b>	PFO	W64-1 to W64-56	34,318
<b>W65</b>	PFO	W65-1 to W65-25	15,822
<b>W66</b>	PEM	W66-1 to W66-29	4,099
<b>W67**</b>	PEM	W67-1 to W67-14	12,970
<b>W68**</b>	PSS	W68-1 to W68-17	10,260
<b>W75**</b>	PEM	W75-1OE to W75-12OE	11,961
<b>W101**</b>	PEM	W101-1 to W101-12	887
<b>W102**</b>	PEM	W102-1 to W102-9	409

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

## Segment 2 DU

### Maryland

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
<b>WP011*</b>	PEM	WP011-001 to WP011-028	20,662
<b>WP020*</b>	PEM	WP020-001 to WP020-005	338
<b>WP022* **</b>	PEM	WP022-001 to WP022-009	994
<b>WP024*</b>	PEM	WP024-001 to WP024-011	3,400
<b>WP025*</b>	PEM	WP025-001 to WP025-016	1,586
<b>WP029* **</b>	PFO	WP029-001 to WP029-004	953
<b>WP030*</b>	PFO	WP030-001 to WP030-006	519
<b>WP031*</b>	PEM	WP031-001 to WP031-009	10,498
<b>WP032* **</b>	PEM	WP032-001 to WP032-005	2,774

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

## Segment 2 E

### Pennsylvania

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
<b>W27*</b>	PFO	W27-1 to W27-9	32,004
<b>W28*</b>	PFO	W28-1 to W28-26	7,011
<b>W30*</b>	PFO	W30-1 to W30-49	20,067
<b>W34</b>	PFO	W34-1 to W34-21	4,756
<b>W35**</b>	PFO	W35-1 to W35-12	2,062
<b>W36</b>	PEM	W36-1 to W36-15	1,079
<b>W37</b>	PEM	W37-1 to W37-12	2,135
<b>W38</b>	PEM	W38-1 to W38-13	413
<b>W40**</b>	PEM	W40-1 to W40-10	972
<b>W41</b>	PSS	W41-1 to W41-19	8,018

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
<b>W42</b>	PFO	W42-1 to W43-3	2,170
<b>W44</b>	PEM	W44-1 to W44-25	5,336
<b>W45</b>	PEM	W45-1 to W45-13	2,652
<b>W46**</b>	PEM	W46-1 to W46-5	4,464
<b>W47**</b>	PEM	W47-1 to W47-16; W47-A to W47-F	3,169
<b>W69</b>	PEM	W69-1 to W69-7	7,494
<b>W72**</b>	PFO	W72-1OE to W72-7OE	276
<b>W73</b>	PEM	W73-1 to W73-6	327
<b>W74</b>	PEM	W74-1 to W74-23	2,682
<b>W76</b>	POW	W76-1 to W76-4	528
<b>W96</b>	PEM	W96-1 to W96-4	260
<b>W97</b>	PEM	W97-1 to W97-9	1,338
<b>W98</b>	PFO	W98-1 to W98-21	10,739
<b>W99</b>	PFO	W99-1 to W99-18	14,626
<b>W100**</b>	PEM	W100-1OE to W100-5OE	437
<b>W103</b>	PEM	W103-1 to W103-19	1,487
<b>W103A</b>	PEM	W103A-1 to W103A-12	882

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

## Segment 2 E

### Maryland

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
<b>WP011*</b>	PEM	WP011-001 to WP011-028	20,662
<b>WP020*</b>	PEM	WP020-001 to WP020-005	338
<b>WP022* **</b>	PEM	WP022-001 to WP022-009	994
<b>WP024*</b>	PEM	WP024-001 to WP024-011	3,400
<b>WP025*</b>	PEM	WP025-001 to WP025-016	1,586

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
<b>WP029* **</b>	PFO	WP029-001 to WP029-004	953
<b>WP030*</b>	PFO	WP030-001 to WP030-006	519
<b>WP031* **</b>	PEM	WP031-001 to WP031-009	10,498
<b>WP032* **</b>	PEM	WP032-001 to WP032-005	2,774

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

### Segment 3 DU-E

Maryland

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
<b>WP004* **</b>	PEM	WP004-001 to WP004-026	37,368
<b>WP026*</b>	PEM	WP026-001 to WP026-019	13,192

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

### Segment 3 DU-E Shift

Maryland

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
<b>WP004* **</b>	PEM	WP004-001 to WP004-026	37,368
<b>WP026*</b>	PEM	WP026-001 to WP026-019	13,192

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

Additional information concerning the wetlands encountered throughout the study area can be found within the appendices to this report. The locations of these systems are shown on the Wetland Delineation map series included as Appendix A.

Upland data points (UPL-1 to UPL-17) were taken throughout the corridor to classify the surrounding upland area. Typical vegetation at these upland plots consists of red maple, silver maple, white ash (*Fraxinus americana*), sweet birch (*Betula lenta*), white clover (*Trifolium repens*), wild carrot (*Daucus carota*), *Rubus* and *Solidago* species as well as various other herbaceous species. Additional information concerning upland areas within the study can be found in Appendix B.



### 3.2.2 Waters of the United States (WUS) Systems

The study area includes perennial, intermittent, and ephemeral waterways within the larger Youghiogheny watershed. These streams primarily drain forests and agricultural land. One stream within the project area, Piney Creek, identified below as S32, is classified as a wild trout and stocked trout stream. Additionally, wild fingerling trout were identified in Meadow Run during a field survey and Meadow Run will be considered a trout stream for the purposes of this project. An Aquatic Resources – Trout table has been included as Appendix E to this report to summarize trout classifications for streams in Pennsylvania. The streams within the project corridor in Maryland do not support trout.

The tables below list the streams identified within the study area and shown on the Wetland Delineation Map series in Appendix A.

#### **Segment 1 DU-E** *Pennsylvania*

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>S1**</b>	Perennial	S1-1 to S1-28	829	Casselman River
<b>S1A</b>	Intermittent	S1A-1 to S1A-46	1,239	Miller Run
<b>S2**</b>	Perennial	S2-1 to S2-64; S2-101 to S2-123	2,183	Casselman River
<b>S2A**</b>	Perennial	S2A-1 to S2A-25	145	Casselman River
<b>S2B</b>	Ephemeral	S2B-1 to S2B-5	34	Casselman River
<b>S2C**</b>	Perennial	S2C-1 to S2C-83	801	Casselman River
<b>S2D**</b>	Perennial	S2D-1 to S2D-84	797	Casselman River
<b>S2E</b>	Perennial	S2E-1 to S2E-8	61	Casselman River
<b>S3</b>	Perennial	S3-1 to S3-59	947	Casselman River
<b>S4**</b>	Perennial	S4-1 to S4-50	349	Casselman River
<b>S4A**</b>	Ephemeral	S4A-1 to S4A-59	604	Casselman River
<b>S4B</b>	Ephemeral	S4B-1 to S4B-17	184	Casselman River
<b>S5</b>	Perennial	S5-1 to S5-4	73	Casselman River
<b>S6</b>	Intermittent	S6-1 to S6-8	57	Casselman River

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>S7</b>	Perennial	S7-1 to S7-76	845	Casselman River
<b>S7A**</b>	Perennial	S7A-3 to S7A-55	362	Casselman River
<b>S7B</b>	Perennial	S7B-3 to S7B-6	21	Casselman River
<b>S8**</b>	Perennial	S8-1 to S8-34	212	Casselman River
<b>S9</b>	Intermittent	S9-1 to S9-8	56	Casselman River
<b>S10**</b>	Perennial	S10-1 to S10-26	200	Casselman River
<b>S11**</b>	Intermittent	S11-1 to S11-16	71	Casselman River
<b>S12</b>	Perennial	S12-1 to S12-30	322	Casselman River
<b>S13</b>	Perennial/Intermittent	S13-1 to S13-21	299	Casselman River
<b>S15**</b>	Perennial	S15-1 to S15-75	443	Casselman River
<b>S16**</b>	Perennial	S16-1 to S16-91	731	Casselman River
<b>S16A**</b>	Intermittent	S16A-1 to S16A-59	757	Casselman River
<b>S16B**</b>	Perennial	S16B-1 to S16B-77	791	Casselman River
<b>S16C</b>	Intermittent	S16C-1 to S16C-7	41	Casselman River
<b>S16D</b>	Ephemeral	S16D-1 to S16D-12	144	Casselman River
<b>S16E**</b>	Perennial	S16E-1 to S16-31	403	Casselman River
<b>S17</b>	Perennial	S17-1 to S17-8	57	Casselman River
<b>S57</b>	Perennial/Intermittent	S57-1 to S57-37	190	Casselman River
<b>S58**</b>	Perennial	S58-1 to S58-12	33	Casselman River
<b>S60</b>	Intermittent	S60-1 to S60-7	148	Miller Run
<b>S61**</b>	Perennial	S61-1 to S61-6	48	Miller Run
<b>S63</b>	Perennial/Ephemeral	S63-1 to S63-10	67	Casselman River
<b>S64</b>	Perennial	S64-1 to S64-24	297	Casselman River

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>S65</b>	Intermittent	S65-1 to S65-9	24	Casselman River

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

## Segment 2 DU Pennsylvania

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>S18* **</b>	Perennial	S18-1 to S18-55	306	Piney Creek
<b>S19* **</b>	Perennial	S19-1 to S19-83	633	Piney Creek
<b>S20* **</b>	Ephemeral	S20-1 to S20-24	65	Piney Creek
<b>S21*</b>	Perennial	S21-1 to S21-37	441	Piney Creek
<b>S23* **</b>	Ephemeral	S23-1 to S23-89	1,100	Piney Creek
<b>S26* **</b>	Perennial	S26-1 to S26-82, S26-100 to S26-149	592	Piney Creek
<b>S32* **</b>	Perennial	S32-1 to S32-113, S32-201 to S32-274, S32-400 to S32-410 evens	2,860	Casselman River
<b>S39* **</b>	Perennial	S39-1 to S39-129, S39-201 to S39-280, S39-300 to S39-326	2,700	Casselman River
<b>S39C</b>	Perennial	S39C-1 to S39C-10	35	Meadow Run
<b>S39D</b>	Intermittent	S39D-1 to S39D-10	109	Meadow Run
<b>S41</b>	Perennial	S41-1 to S41-14	58	Piney Creek
<b>S42</b>	Perennial	S42-1 to S42-11	123	Piney Creek
<b>S43</b>	Perennial	S43-1 to S43-29, S43-50 to S43-57, S43-100 to S43-108	247	Piney Creek
<b>S43A</b>	Intermittent	S43A-1 to S43A-4	17	Piney Creek
<b>S44</b>	Perennial	S44-1 to S44-20	122	Piney Creek
<b>S45</b>	Perennial	S45-1 to S45-22	112	Piney Creek
<b>S45A</b>	Perennial	S45A-1 to S45A-5	19	Piney Creek

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>S46**</b>	Intermittent	S46-25 to S46-51	394	Piney Creek
<b>S46A**</b>	Intermittent	S46A-1 to S46A-24	368	Piney Creek
<b>S46B**</b>	Ephemeral	S46B-1 to S46B-8	45	Piney Creek
<b>S47**</b>	Ephemeral	S47-1 to S47-24	86	Piney Creek
<b>S48**</b>	Perennial	S48-1 to S48-44	390	Meadow Run
<b>S50**</b>	Perennial	S50-9 to S50-30	165	Meadow Run
<b>S50A</b>	Intermittent	S50A-1 to S50A-4	18	Meadow Run
<b>S51</b>	Intermittent	S51-1 to S51-53	631	Meadow Run
<b>S51A</b>	Ephemeral	S51A-1 to S51A-4	35	Meadow Run
<b>S52</b>	Intermittent	S52-1 to S52-15	136	Meadow Run
<b>S53**</b>	Intermittent	S53-1 to S53-62; S53-101 to S53-137	732	Meadow Run
<b>S53A**</b>	Perennial	S53A-1 to S53A-20	201	Meadow Run
<b>S54</b>	Intermittent	S54-1 to S54-16	126	Meadow Run
<b>S55</b>	Ephemeral	S55-1 to S55-4	45	Meadow Run
<b>S56</b>	Perennial	S56-1 to S56-31	264	Meadow Run

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

## Segment 2 DU

Maryland

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>WL010* **</b>	Intermittent	WL010-001 to WL010-007	160	Casselman River
<b>WL012*</b>	Intermittent	WL012-001 to WL012-040	1,541	Meadow Run
<b>WL013*</b>	Intermittent	WL013-001 to WL013-030	1,228	Meadow Run
<b>WL014* **</b>	Perennial	WL014-001 to WL014-035	2,203	Meadow Run

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>WL016* **</b>	Perennial	WL016-001 to WL016-020	39	Meadow Run
<b>WL021*</b>	Intermittent	WL021-001 to WL021-003	33	Meadow Run
<b>WL027*</b>	Ephemeral	WL027-001 to WL027-0114	574	Meadow Run
<b>WL028*</b>	Ephemeral	WL028-001 to WL028-003	57	Meadow Run

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

## Segment 2 E

### Pennsylvania

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>S18* **</b>	Perennial	S18-1 to S18-55	306	Piney Creek
<b>S19* **</b>	Perennial	S19-1 to S19-83	633	Piney Creek
<b>S20* **</b>	Ephemeral	S20-1 to S20-24	65	Piney Creek
<b>S21* **</b>	Perennial	S21-1 to S21-37	441	Piney Creek
<b>S23* **</b>	Ephemeral	S23-1 to S23-89	1,100	Piney Creek
<b>S24</b>	Intermittent	S24-1 to S24-12	50	Piney Creek
<b>S25</b>	Perennial	S25-1 to S25-26	140	Piney Creek
<b>S25A</b>	Intermittent	S25A-1 to S25-7	51	Piney Creek
<b>S26* **</b>	Perennial	S26-1 to S26-82, S26-100 to S26-149	592	Piney Creek
<b>S27</b>	Perennial	S27-1 to S27-27	36	Piney Creek
<b>S28</b>	Perennial	S28-1 to S28-12	146	Piney Creek
<b>S28A</b>	Intermittent	S28A-1 to S28A-17	14	Piney Creek
<b>S29**</b>	Perennial	S29-1 to S29-28	83	Piney Creek
<b>S29A**</b>	Perennial	S29A-1 to S29A-4	19	Piney Creek
<b>S30**</b>	Perennial	S30-1 to S30-15	90	Piney Creek
<b>S31**</b>	Perennial	S31-1 to S31-99	752	Piney Creek



Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>S32* **</b>	Perennial	S32-1 to S32-113, S32-201 to S32-274, S32-400 to S32-410 evens	2,860	Casselman River
<b>S33**</b>	Perennial	S33-1 to S33-73	766	Piney Creek
<b>S34 **</b>	Perennial	S34-1 to S34-47	375	Piney Creek
<b>S36</b>	Ephemeral	S36-1 and S36-2	12	Piney Creek
<b>S38**</b>	Perennial	S38-1 to S38-162, S38-200 to S38-219	1,021	Meadow Run
<b>S38A</b>	Ephemeral	S38A-1 to S38A-8	65	Meadow Run
<b>S38B</b>	Perennial	S38B-1 to S38B-2	8	Meadow Run
<b>S38C</b>	Intermittent	S38C-1 to S38C-12	69	Meadow Run
<b>S39* **</b>	Perennial	S39-1 to S39-129, S39-201 to S39-280, S39-300 to S39-326	2,700	Casselman River
<b>S39A**</b>	Ephemeral	S39A-1 to S39A-45	320	Meadow Run
<b>S59</b>	Intermittent	S59-1 to S59-26	243	Meadow Run
<b>S66</b>	Intermittent	S66-1 to S66-19	182	Piney Creek
<b>S67</b>	Intermittent	S67-1 to S67-8	64	Meadow Run
<b>S68</b>	Intermittent	S68-1 to S68-10	41	Piney Creek

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

## Segment 2 E

### Maryland

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>WL010* **</b>	Intermittent	WL010-001 to WL010-007	160	Casselman River
<b>WL012*</b>	Intermittent	WL012-001 to WL012-040	1,541	Meadow Run
<b>WL013*</b>	Intermittent	WL013-001 to WL013-030	1,228	Meadow Run
<b>WL014* **</b>	Perennial	WL014-001 to WL014-035	2,203	Meadow Run

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>WL016*</b>	Perennial	WL016-001 to WL016-020	39	Meadow Run
<b>WL021*</b>	Intermittent	WL021-001 to WL021-003	33	Meadow Run
<b>WL027*</b>	Intermittent	WL027-001 to WL027-0114	574	Meadow Run
<b>WL028*</b>	Intermittent	WL028-001 to WL028-003	57	Meadow Run

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

### Segment 3 DU-E

Maryland

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>WL005*</b>	Intermittent	WL005-001 to WL005-005	101	Meadow Run
<b>WL006* **</b>	Perennial	WL006-001 to WL006-014	563	Meadow Run
<b>WL007*</b>	Intermittent	WL007-001 to WL007-011	300	Meadow Run
<b>WL008*</b>	Intermittent	WL008-001 to WL008-004	50	Meadow Run
<b>WL009*</b>	Ephemeral	WL009-001 to WL009-004	86	Casselman River
<b>WL010*</b>	Intermittent	WL010-001 to WL010-007	160	Casselman River

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

### Segment 3 DU-E Shift

Maryland

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
<b>WL005*</b>	Intermittent	WL005-001 to WL005-005	101	Meadow Run
<b>WL006*</b>	Perennial	WL006-001 to WL006-014	563	Meadow Run
<b>WL007*</b>	Intermittent	WL007-001 to WL007-011	300	Meadow Run
<b>WL008*</b>	Intermittent	WL008-001 to WL008-004	50	Meadow Run
<b>WL009*</b>	Ephemeral	WL009-001 to WL009-004	86	Casselman River

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
WL010*	Intermittent	WL010-001 to WL010-007	160	Casselman River

\*Denotes system is located within multiple alignments

\*\* Denotes system continues beyond the Limit of Disturbance

## 4.0 CONCLUSIONS

The study area contains 102 nontidal wetland systems and 105 waterways, as described above.

This investigation represents a study of the nontidal wetland and waterway resources as observed within the study area from Spring 2022 to Spring 2023. Investigations of this type reflect the current state of temporal and variable conditions and require individual professional judgment. This is, therefore, a professional estimate of the wetlands located in the study area based on the delineation methodology utilized and the most recent and best-available information for the above-mentioned site. Wetland boundaries, as currently defined for regulatory purposes, can only be verified to a review by the U.S. Army Corps of Engineers and/or the Pennsylvania Department of Environmental Protection and Maryland Department of the Environment in consultation with the U.S. Environmental Protection Agency and U.S. Fish and Wildlife Service.

## 5.0 REFERENCES

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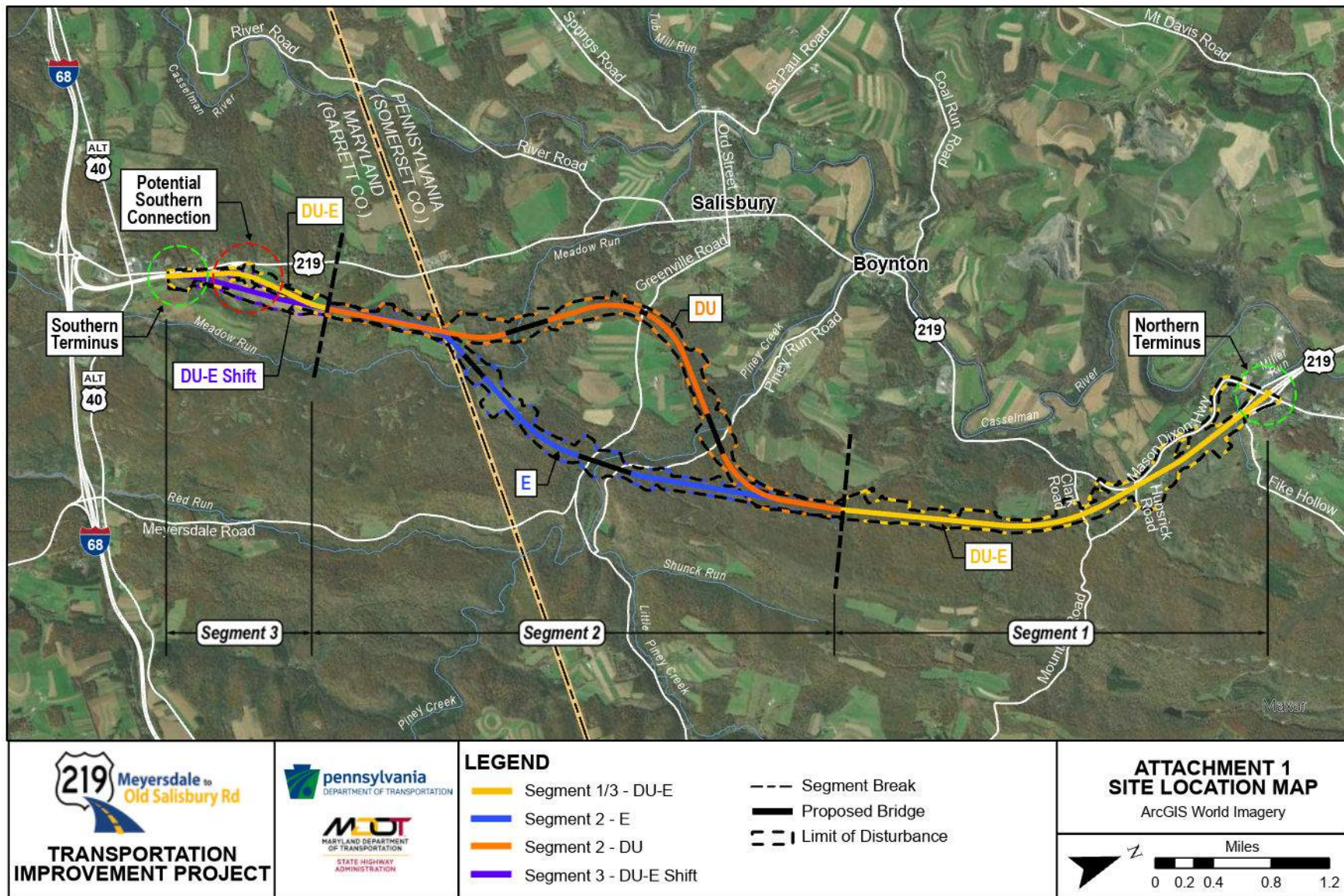
United States Fish and Wildlife Service (USFWS). 1981-2022. National Wetlands Inventory Map for Meyersdale, Pennsylvania. USFWS, Washington, D.C.

United States Geological Survey (USGS). 2019. Avilton, Maryland 7.5' Quadrangle Map. USGS, Reston, Virginia.

United States Geological Survey (USGS). 2019. Meyersdale, Pennsylvania 7.5' Quadrangle Map. USGS, Reston, Virginia.

## **ATTACHMENT 1**

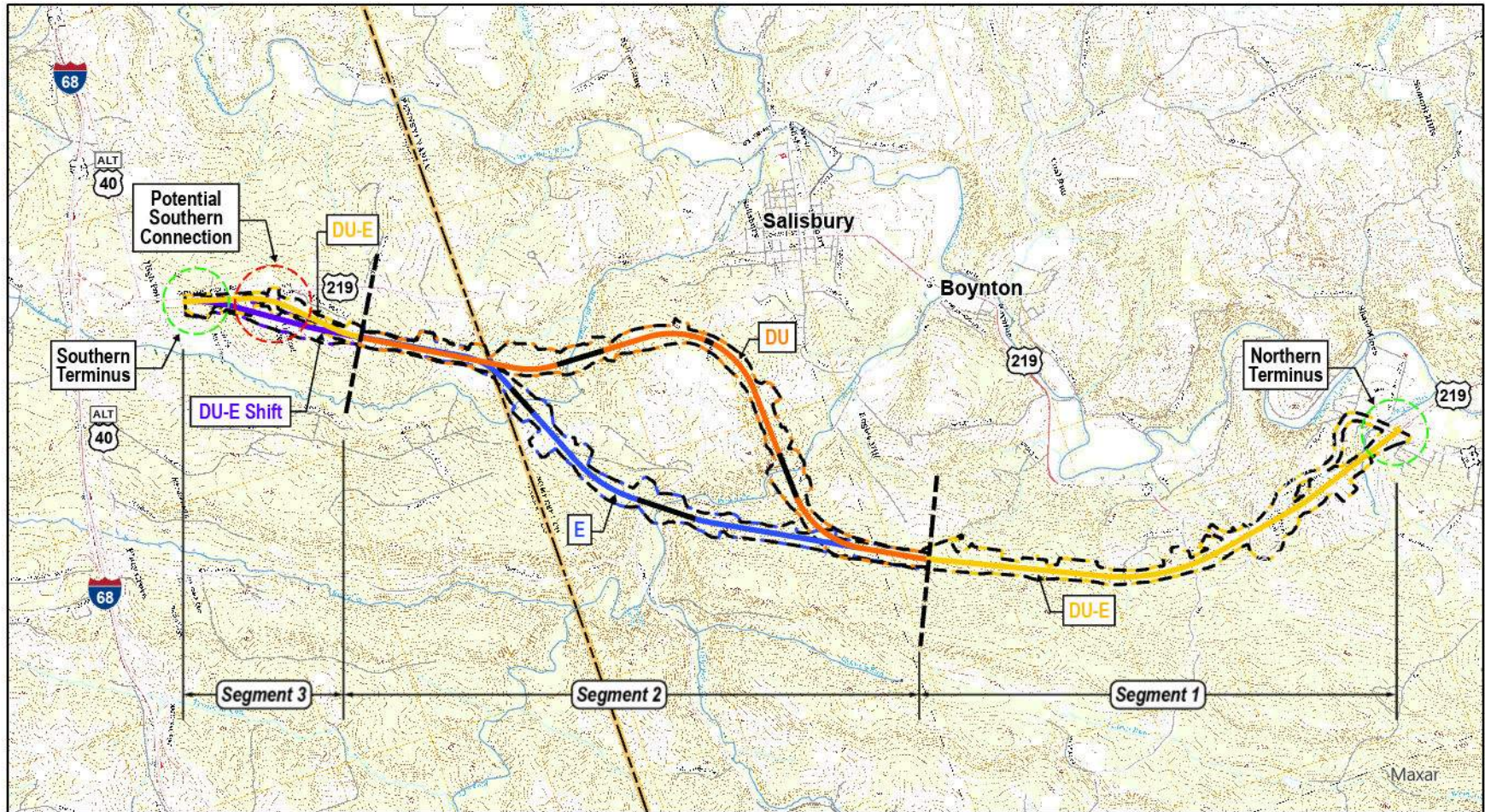
*Site Location Map*



## **ATTACHMENT 2**

***USGS 7.5' Topographic Map***





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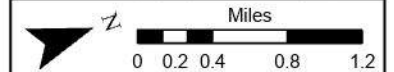
#### LEGEND

- Segment 1/3 - DU-E
- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- Segment Break
- Proposed Bridge
- Limit of Disturbance

#### ATTACHMENT 2 USGS MAP

Avilton & Meyersdale Quadrangles  
USGS 7.5' Topographic Quadrangles, 2019






## **ATTACHMENT 3**

### ***Soils Map***





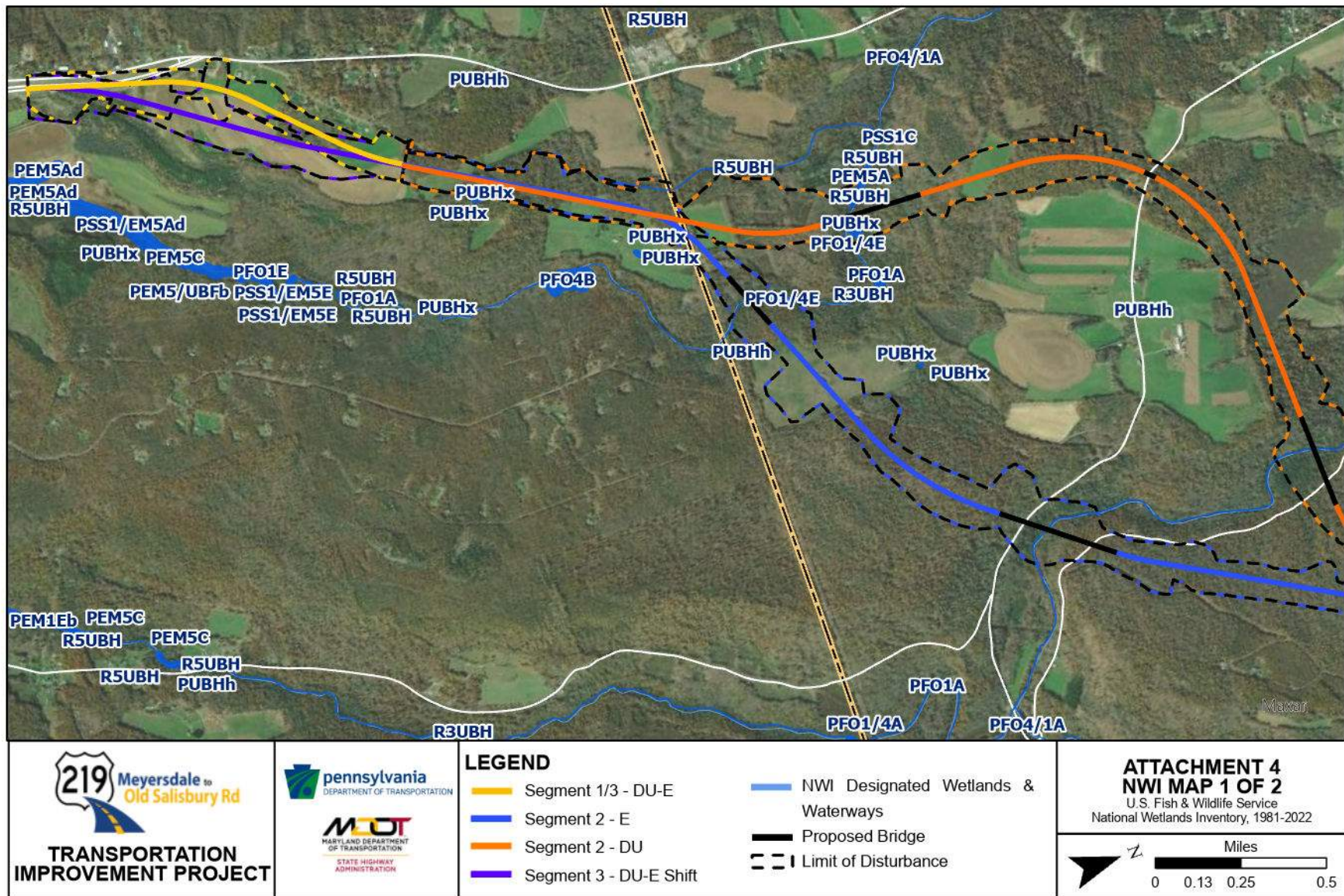
**ATTACHMENT 3**  
**SOILS MAP 2 OF 2**  
U.S. Department of Agriculture - SSURGO Soils  
Natural Resources Conservation Service, 2019

 Miles  
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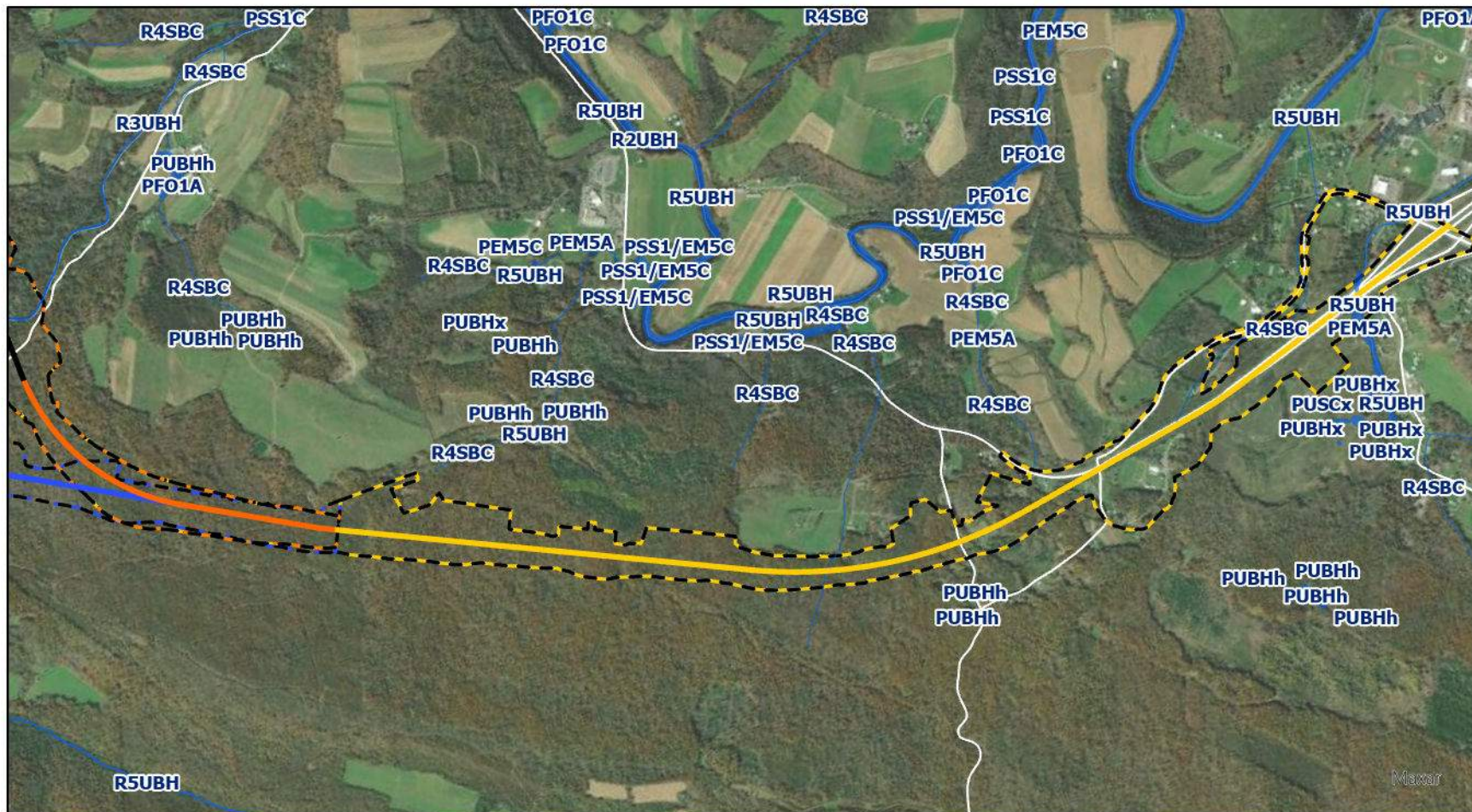
## **ATTACHMENT 4**

### ***National Wetlands Inventory (NWI) Map***









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#### LEGEND

- Segment 1/3 - DU-E
- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- NWI Designated Wetlands & Waterways
- Proposed Bridge
- - - Limit of Disturbance

#### ATTACHMENT 4 NWI MAP 2 OF 2

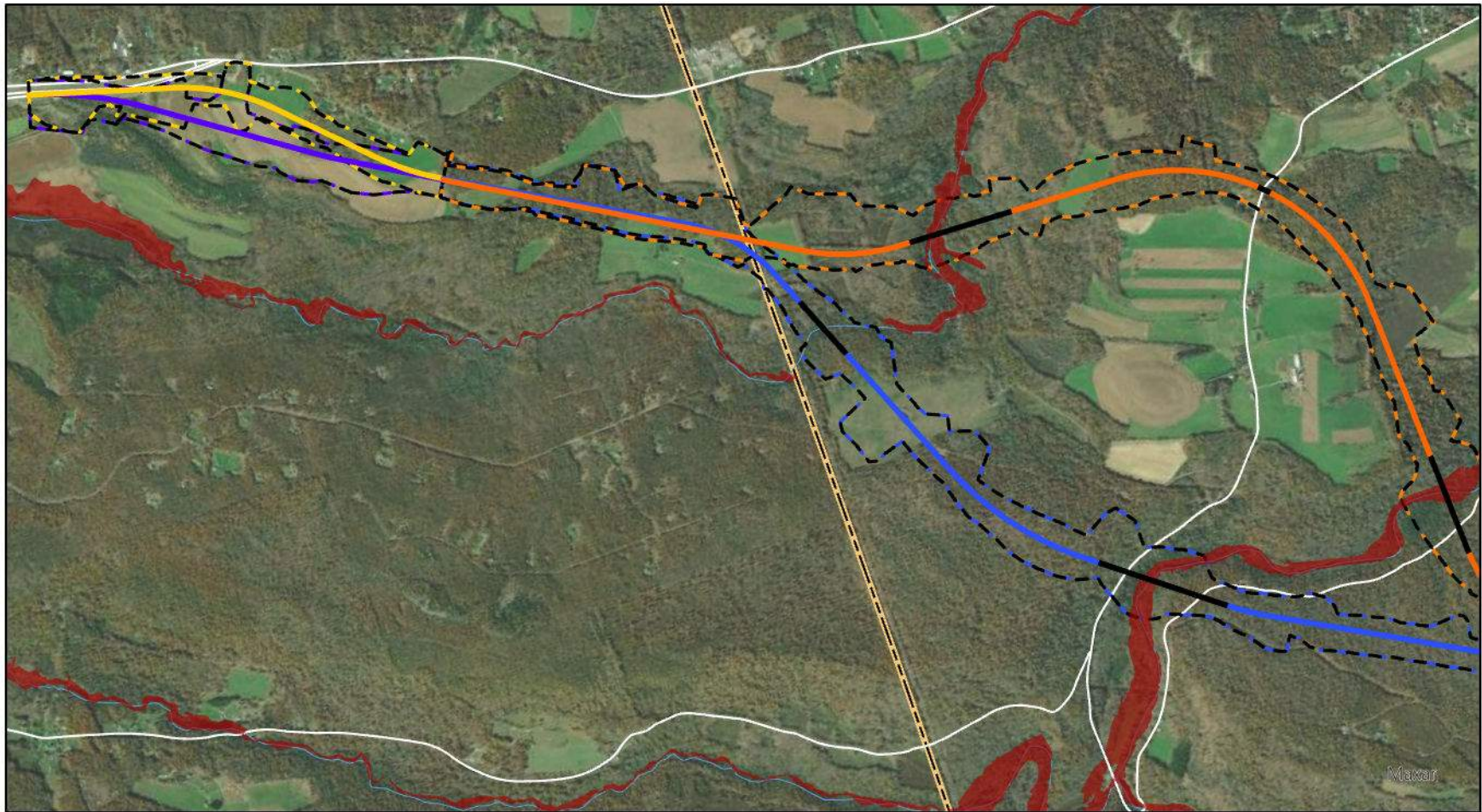
U.S. Fish & Wildlife Service  
National Wetlands Inventory, 1981-2022





## **ATTACHMENT 5**

### ***FEMA-Designated Floodplains Map***



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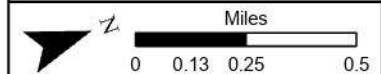
#### LEGEND

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- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

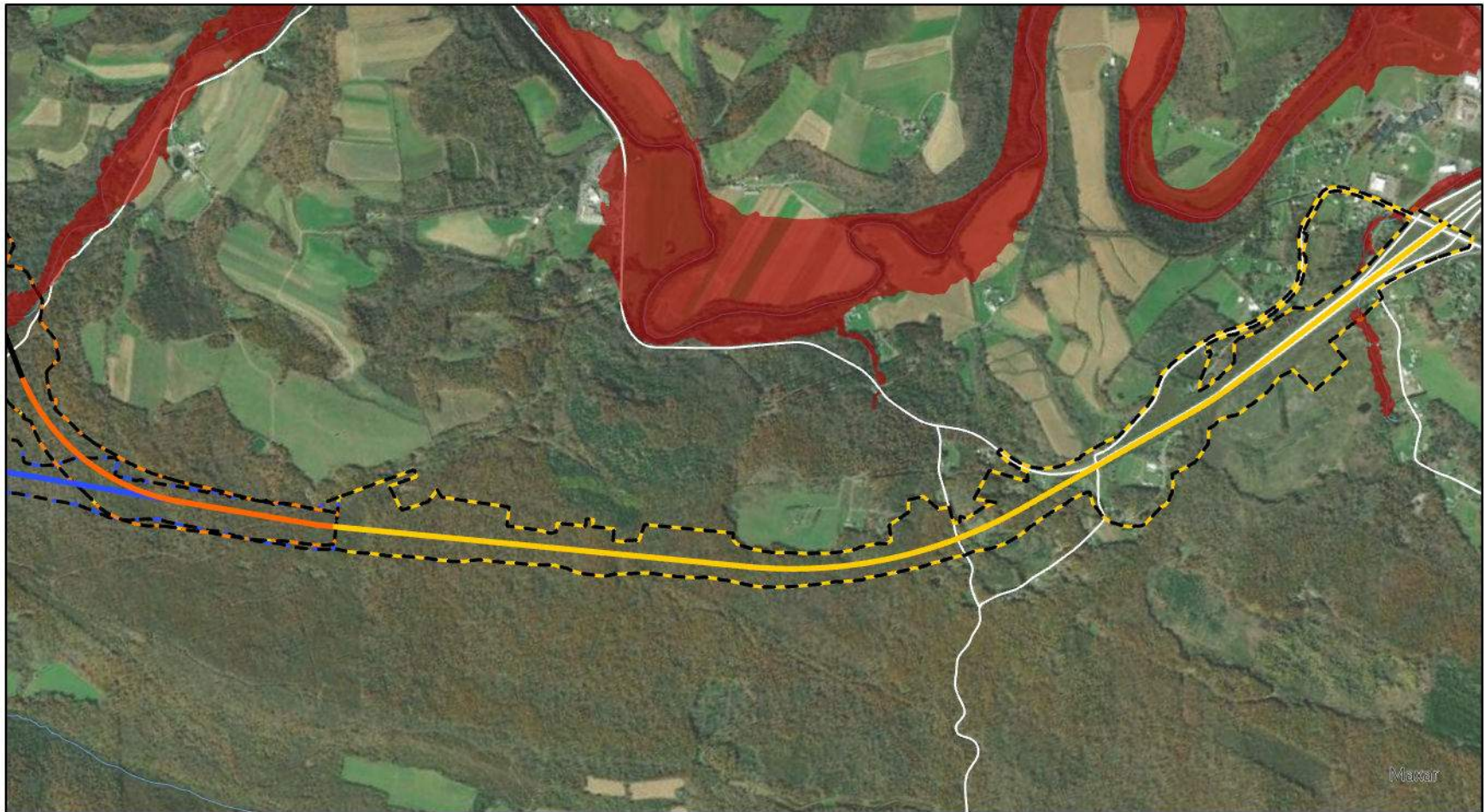
- FEMA 100-Year Floodplain
- Proposed Bridge
- - - Limit of Disturbance

#### ATTACHMENT 5 Q3 FLOOD MAP 1 OF 2

Federal Emergency Management Agency, 2019  
Q3 Flood Data for Garrett & Somerset Counties







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#### LEGEND

- Segment 1/3 - DU-E
- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- FEMA 100-Year Floodplain
- Proposed Bridge
- - - Limit of Disturbance

#### ATTACHMENT 5 Q3 FLOOD MAP 2 OF 2

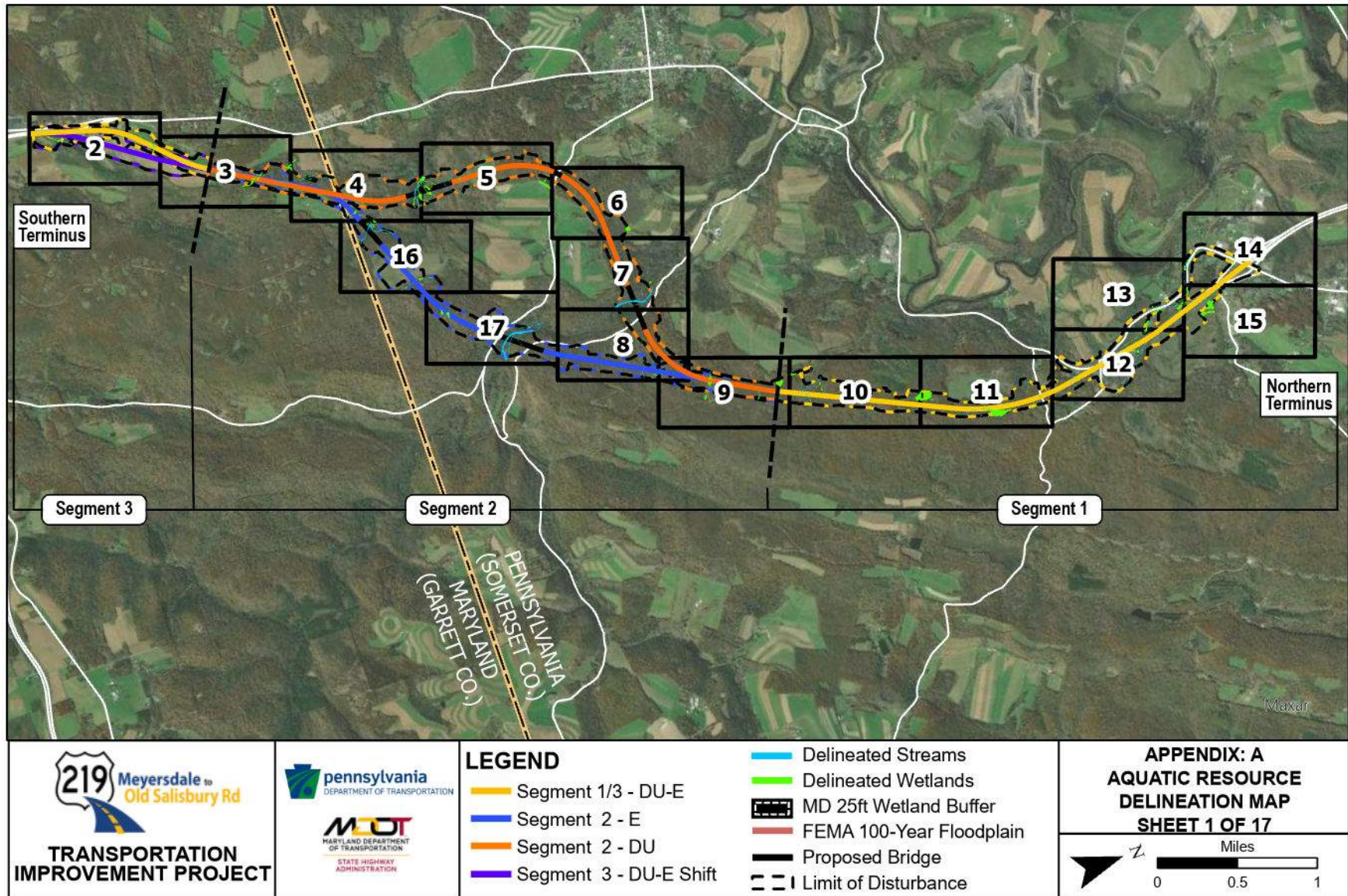
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Q3 Flood Data for Garrett & Somerset Counties



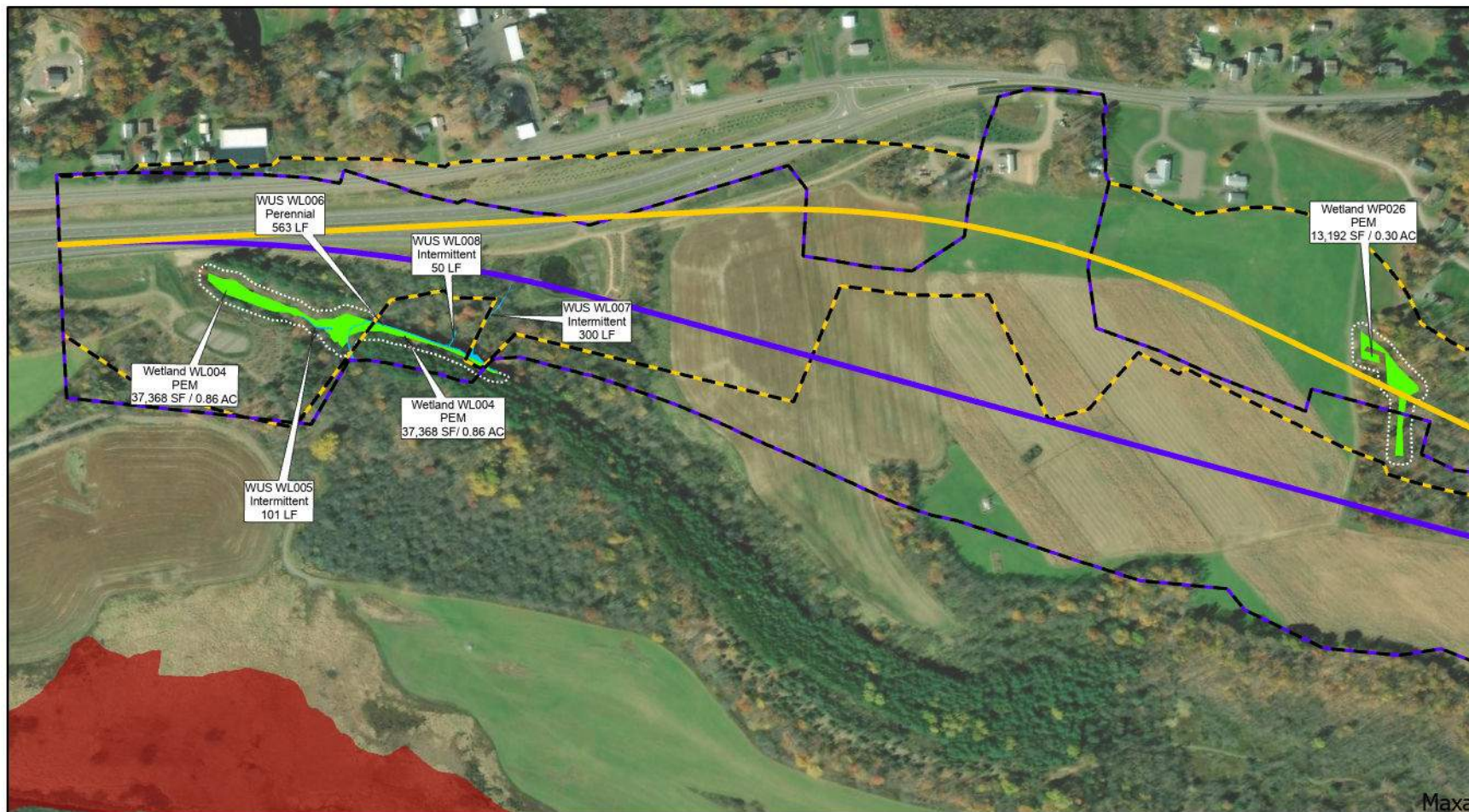
## **APPENDIX A**

### ***Aquatic Resource Delineation Map***









#### LEGEND

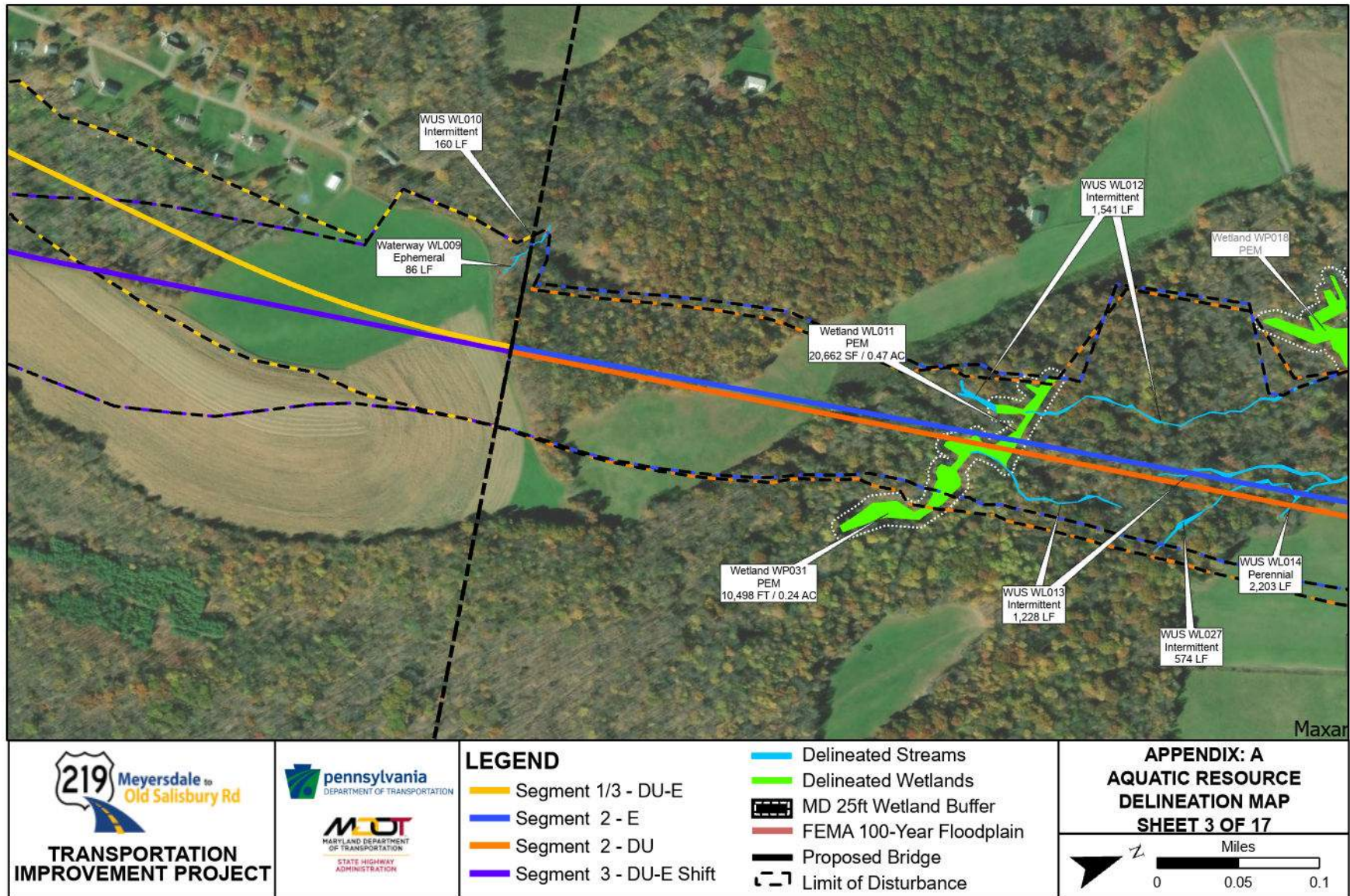
- Segment 1/3 - DU-E
- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- Delineated Streams
- Delineated Wetlands
- MD 25ft Wetland Buffer
- FEMA 100-Year Floodplain
- Proposed Bridge
- Limit of Disturbance

#### APPENDIX: A AQUATIC RESOURCE DELINEATION MAP SHEET 2 OF 17







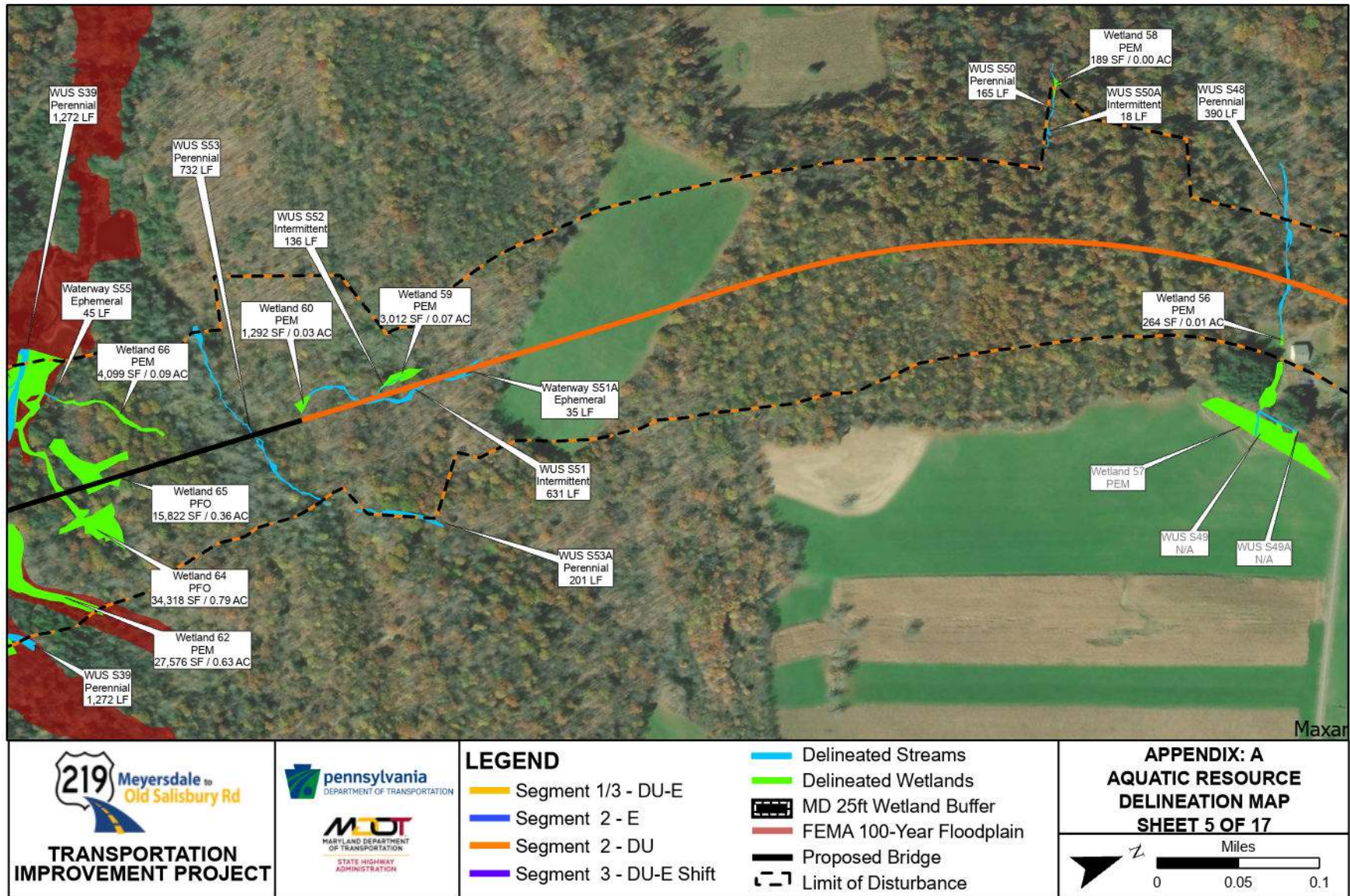
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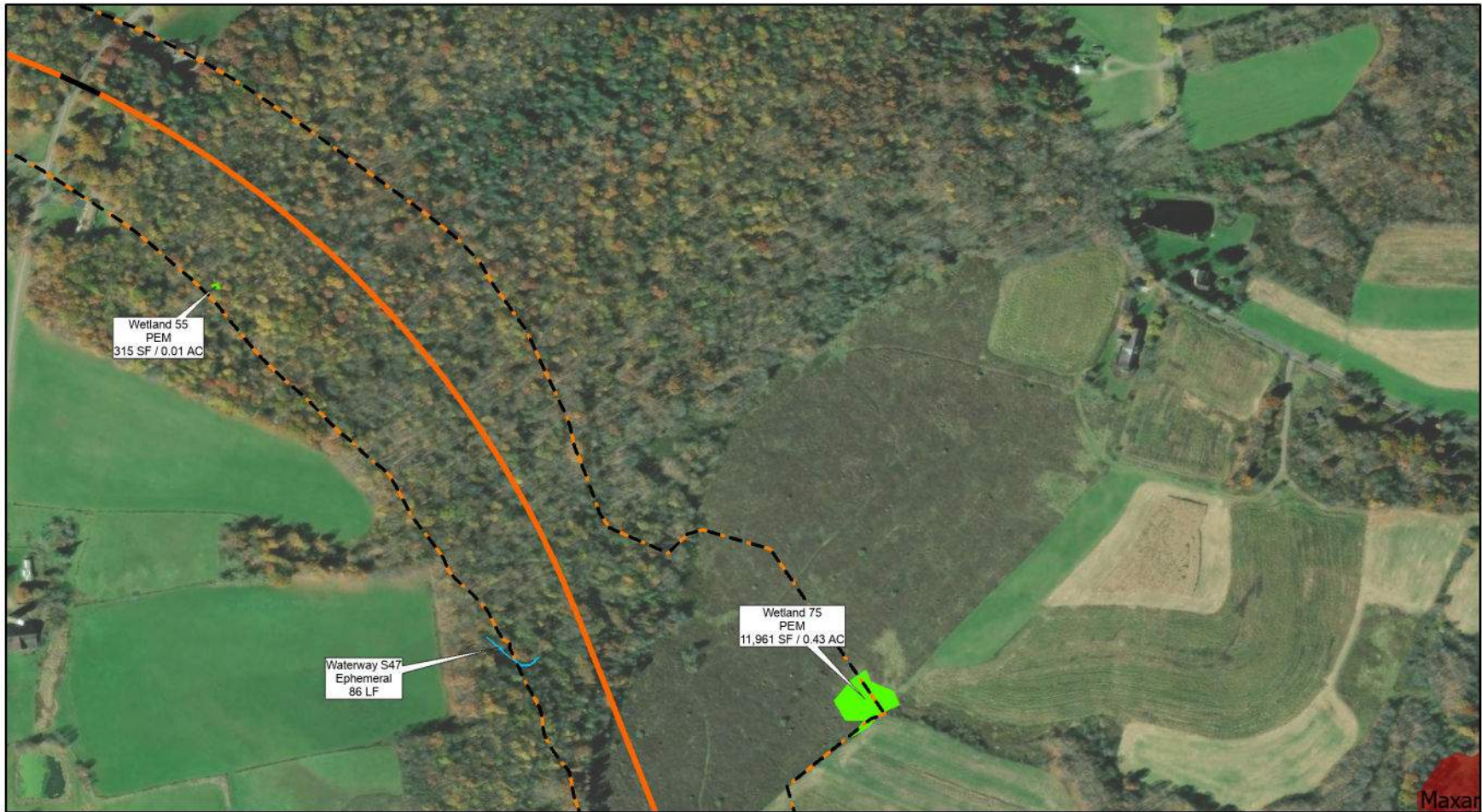
\*Grayed out labels indicated system is entirely outside the project's limits of disturbance





\*Grayed out labels indicated system is entirely outside the project's limits of disturbance





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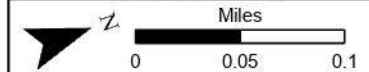


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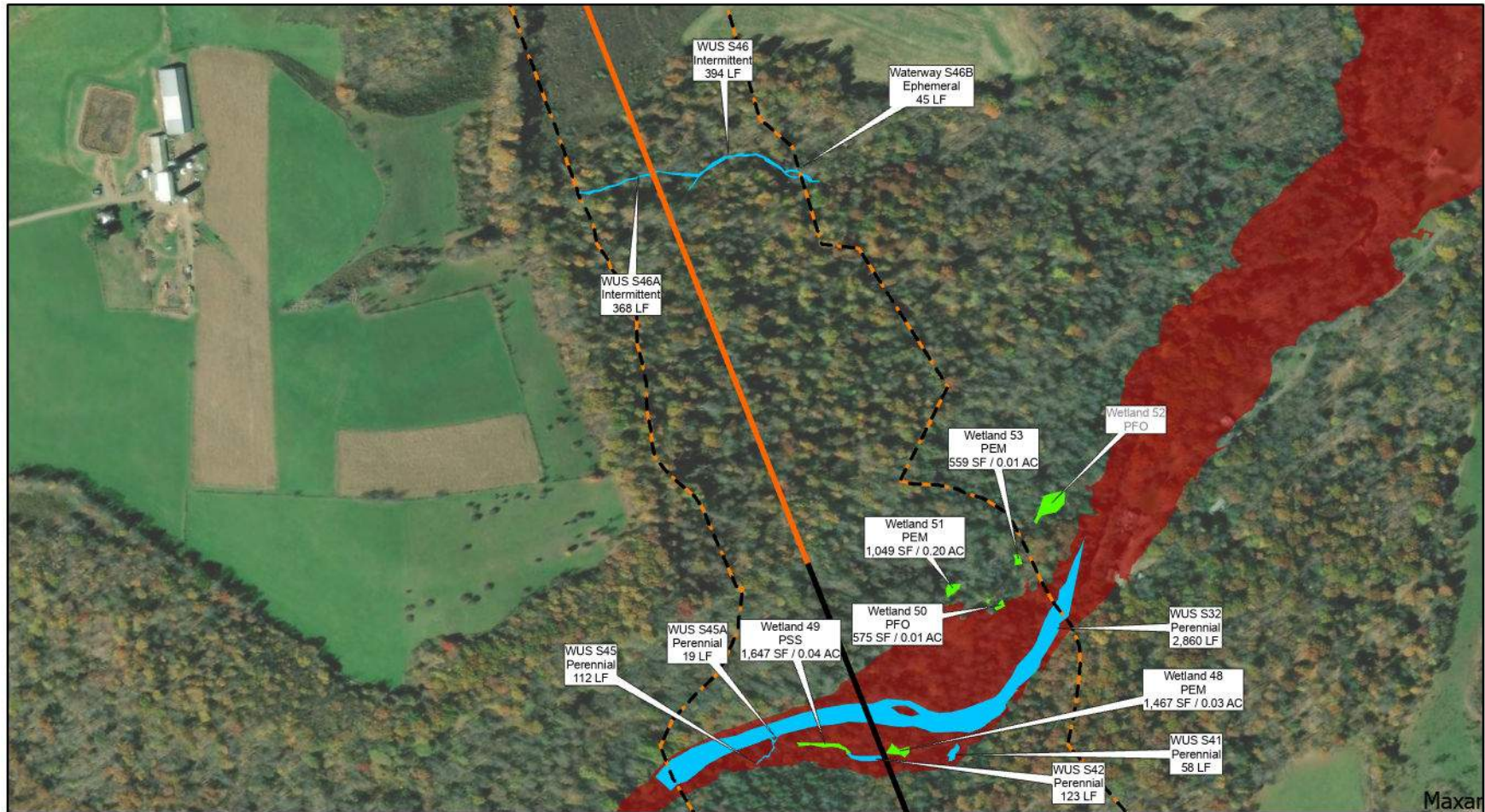
- Segment 1/3 - DU-E
- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- Delineated Streams
- Delineated Wetlands
- MD 25ft Wetland Buffer
- FEMA 100-Year Floodplain
- Proposed Bridge
- Limit of Disturbance

#### APPENDIX: A AQUATIC RESOURCE DELINEATION MAP SHEET 6 OF 17







**TRANSPORTATION  
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#### LEGEND

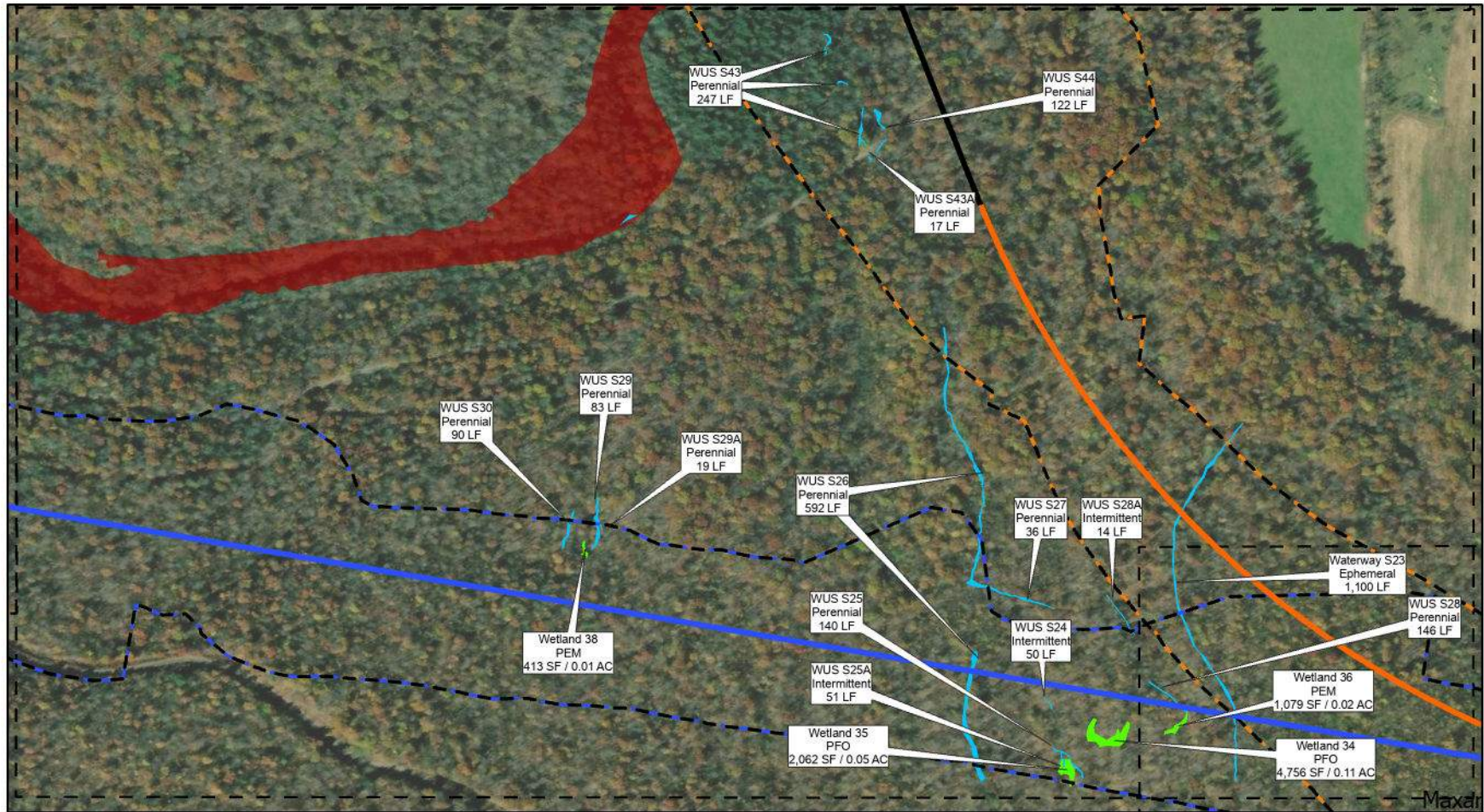
- Segment 1/3 - DU-E
- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- Delineated Streams
- Delineated Wetlands
- MD 25ft Wetland Buffer
- FEMA 100-Year Floodplain
- Proposed Bridge
- Limit of Disturbance

#### APPENDIX: A AQUATIC RESOURCE DELINEATION MAP SHEET 7 OF 17







**TRANSPORTATION  
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#### LEGEND

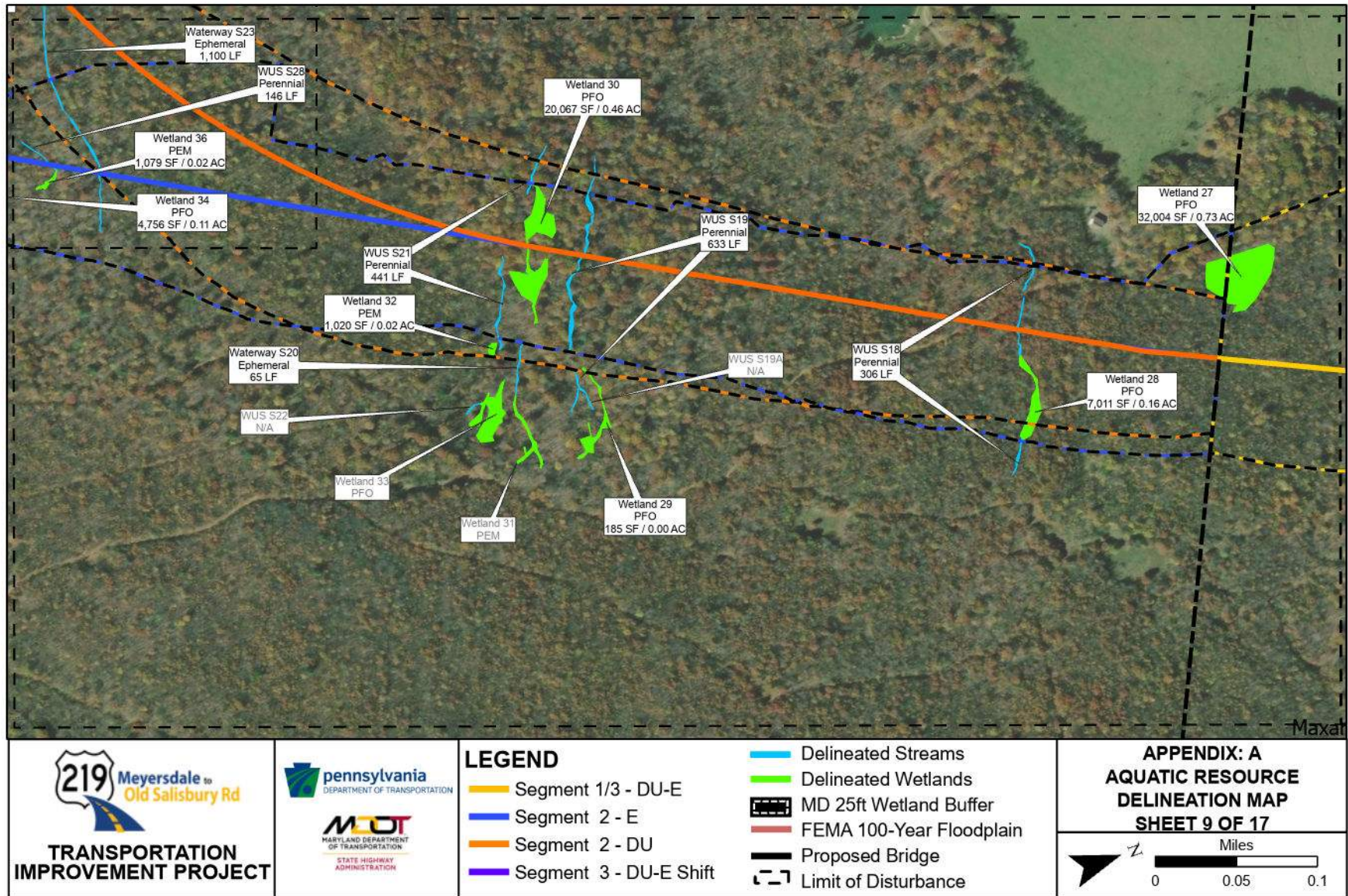
- Segment 1/3 - DU-E
- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- Delineated Streams
- Delineated Wetlands
- MD 25ft Wetland Buffer
- FEMA 100-Year Floodplain
- Proposed Bridge
- Limit of Disturbance

#### APPENDIX: A AQUATIC RESOURCE DELINEATION MAP SHEET 8 OF 17

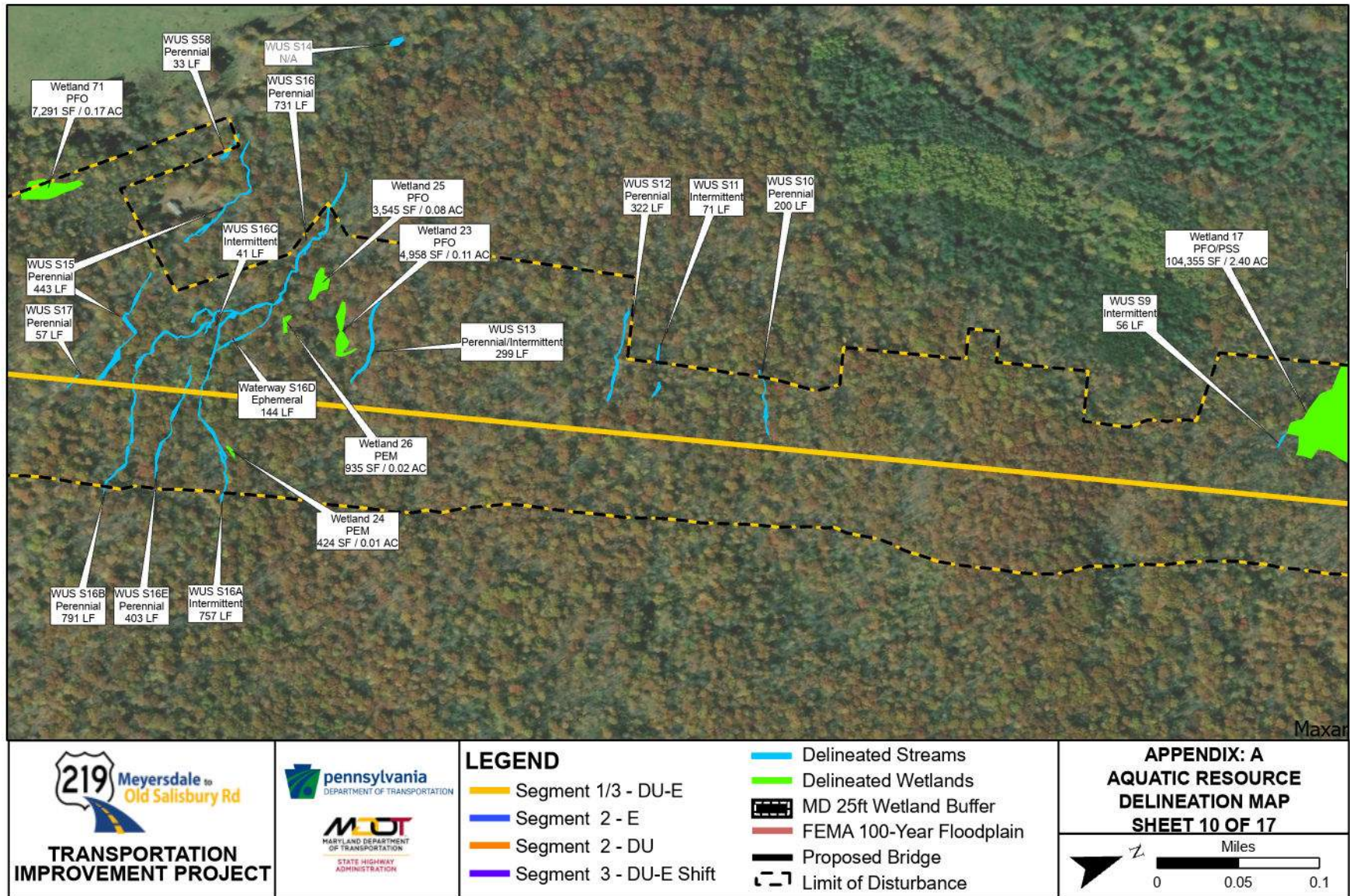






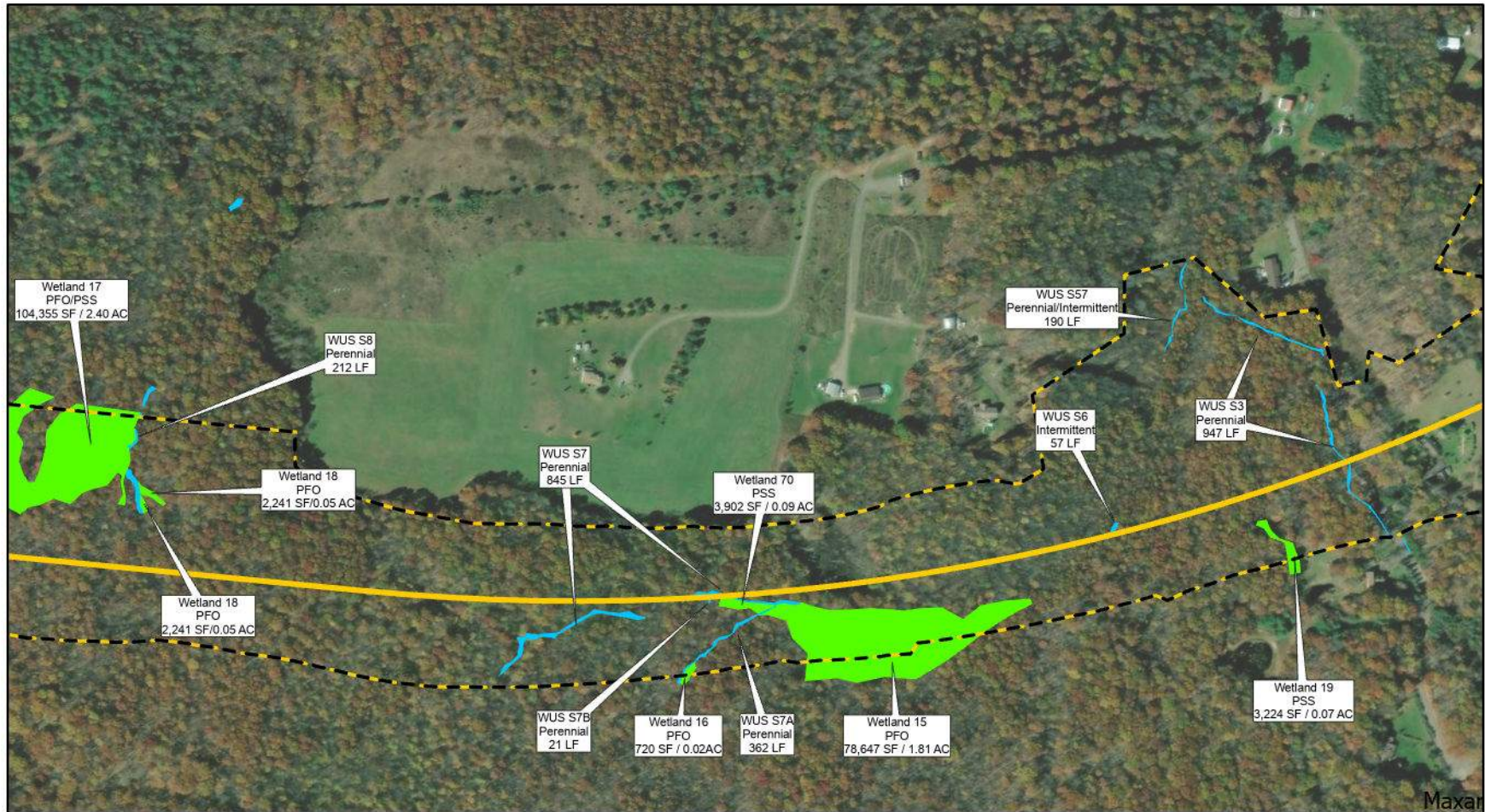
\*Grayed out labels indicated system is entirely outside the project's limits of disturbance





\*Grayed out labels indicated system is entirely outside the project's limits of disturbance





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**TRANSPORTATION  
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### LEGEND

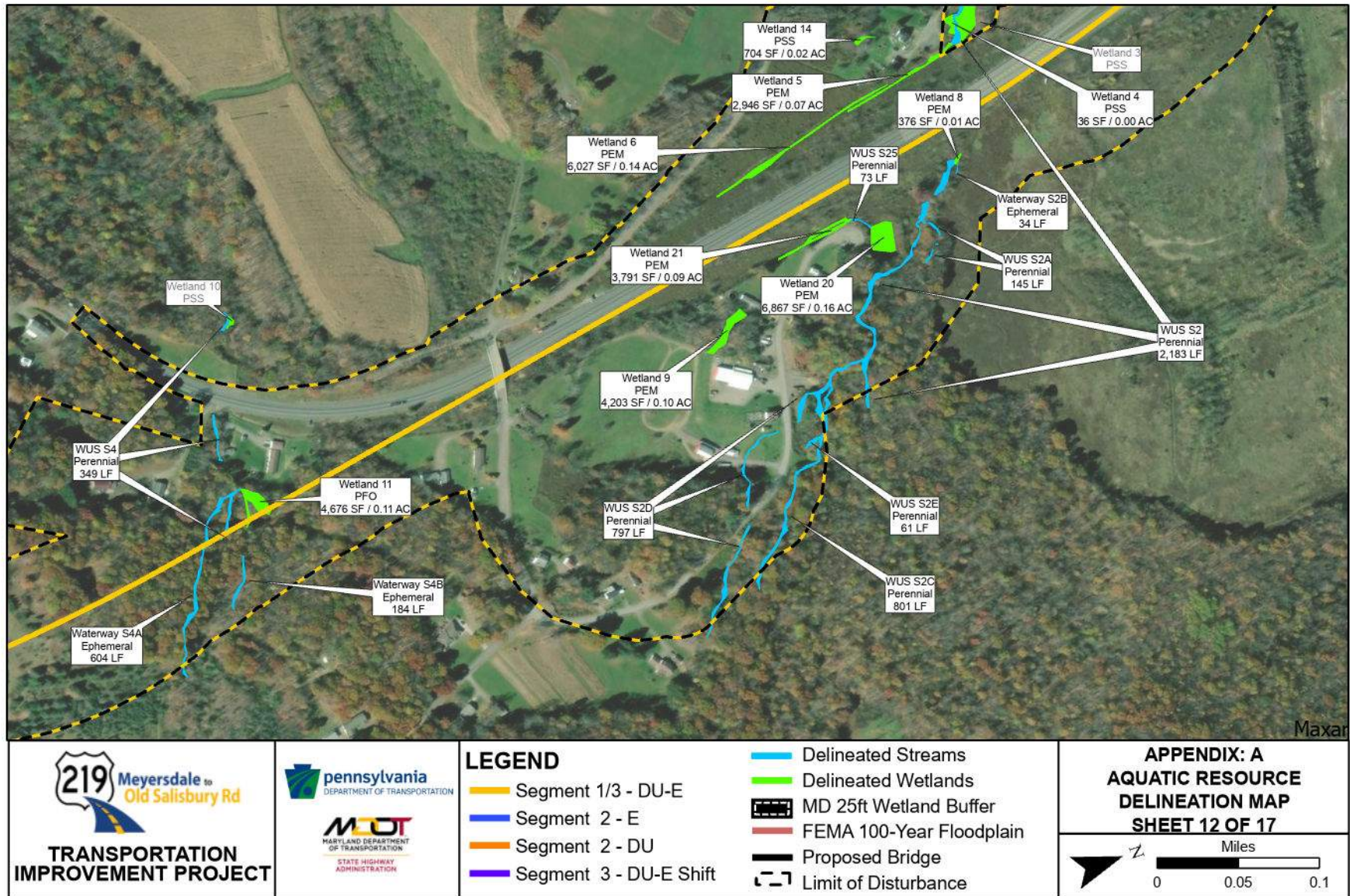
- Segment 1/3 - DU-E
- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- Delineated Streams
- Delineated Wetlands
- MD 25ft Wetland Buffer
- FEMA 100-Year Floodplain
- Proposed Bridge
- Limit of Disturbance

### APPENDIX: A AQUATIC RESOURCE DELINEATION MAP SHEET 11 OF 17

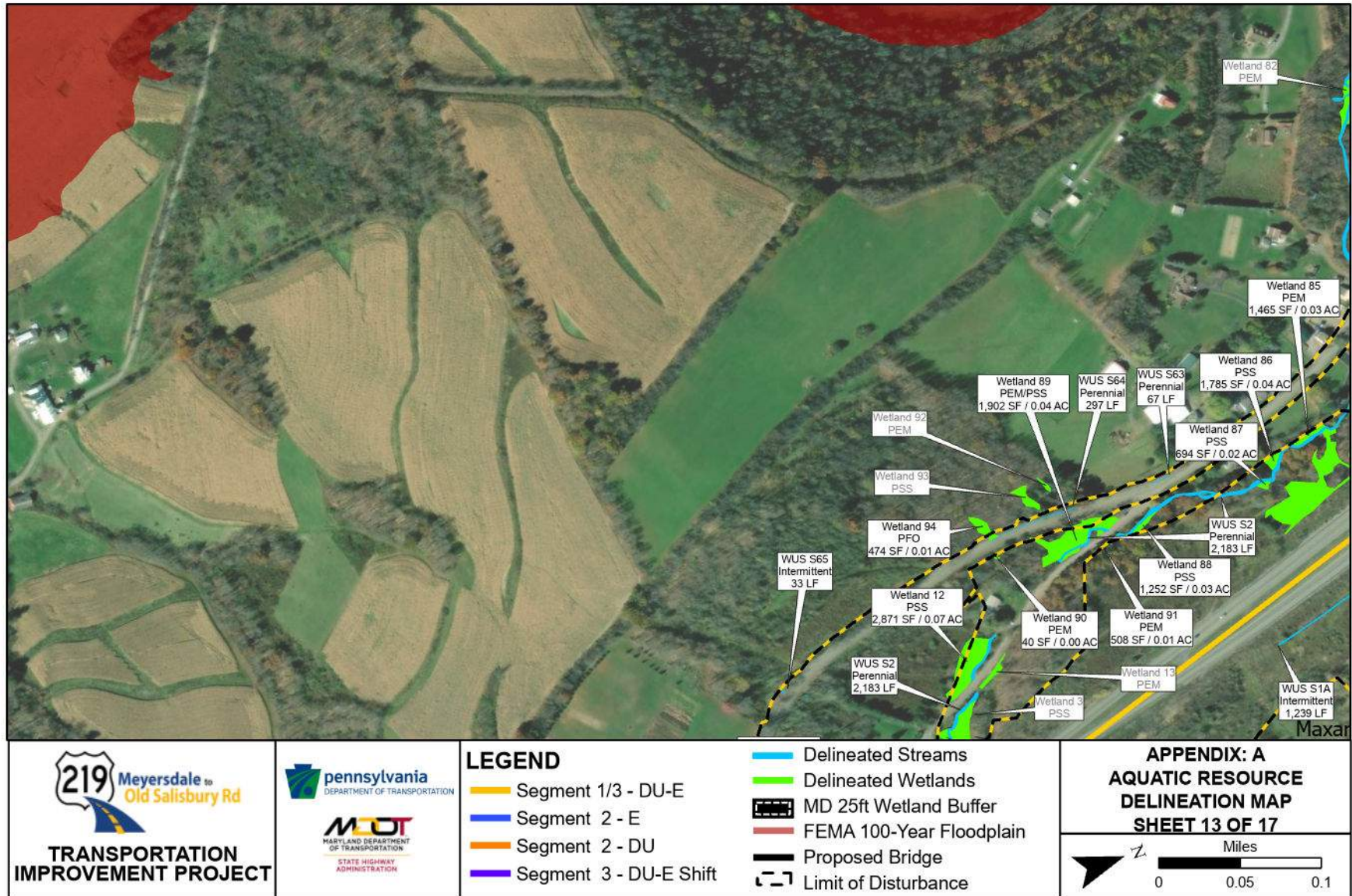






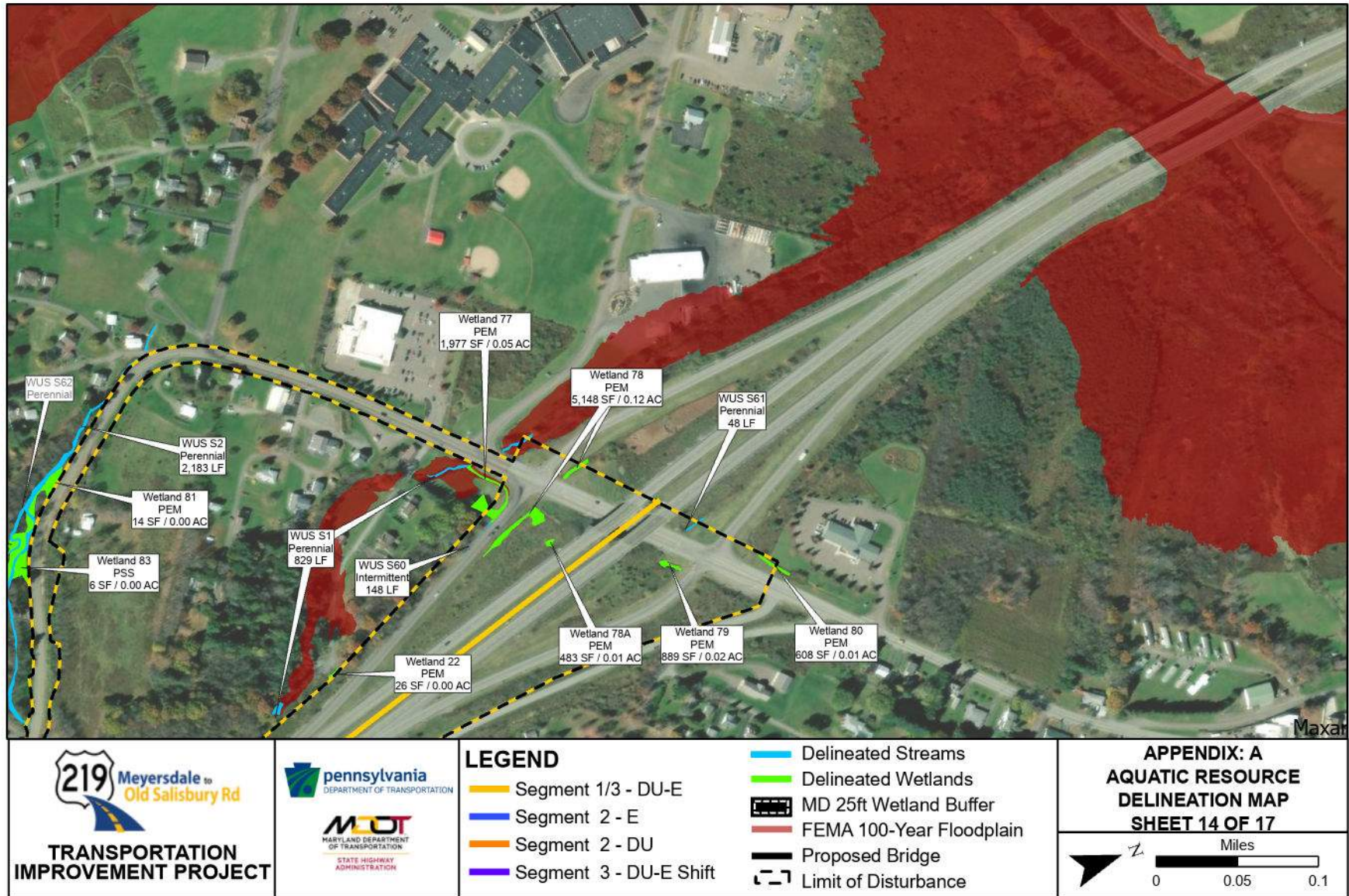
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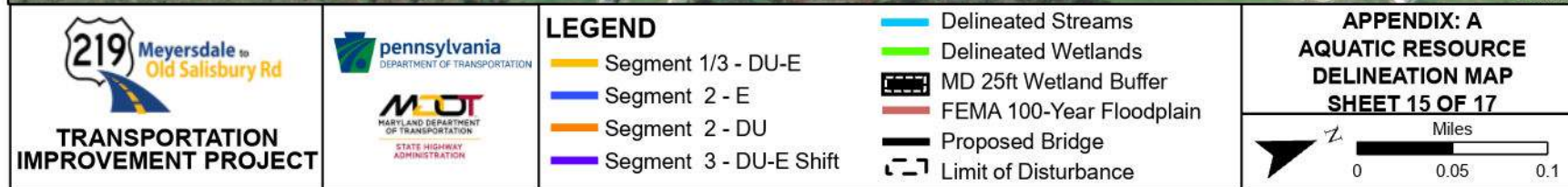
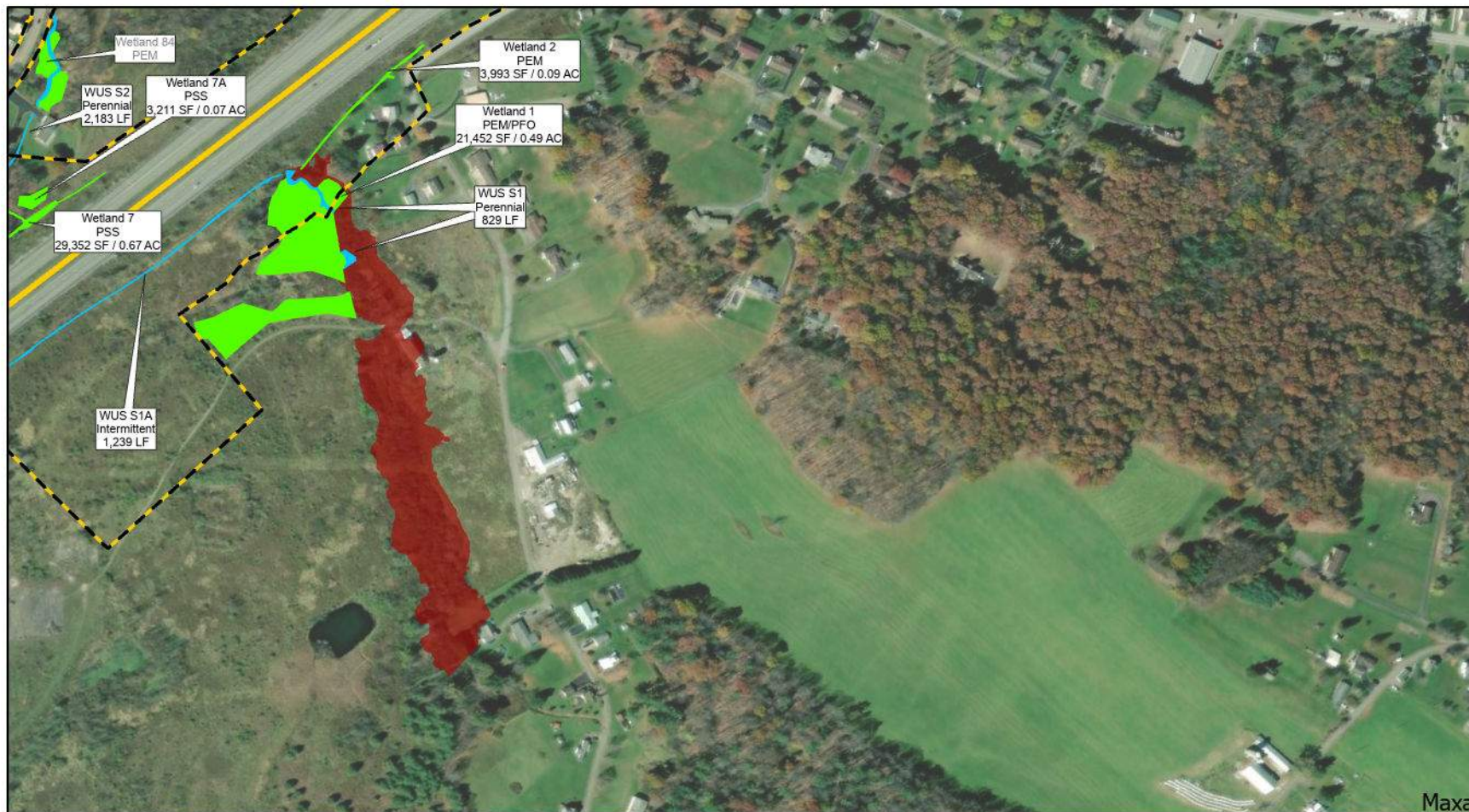
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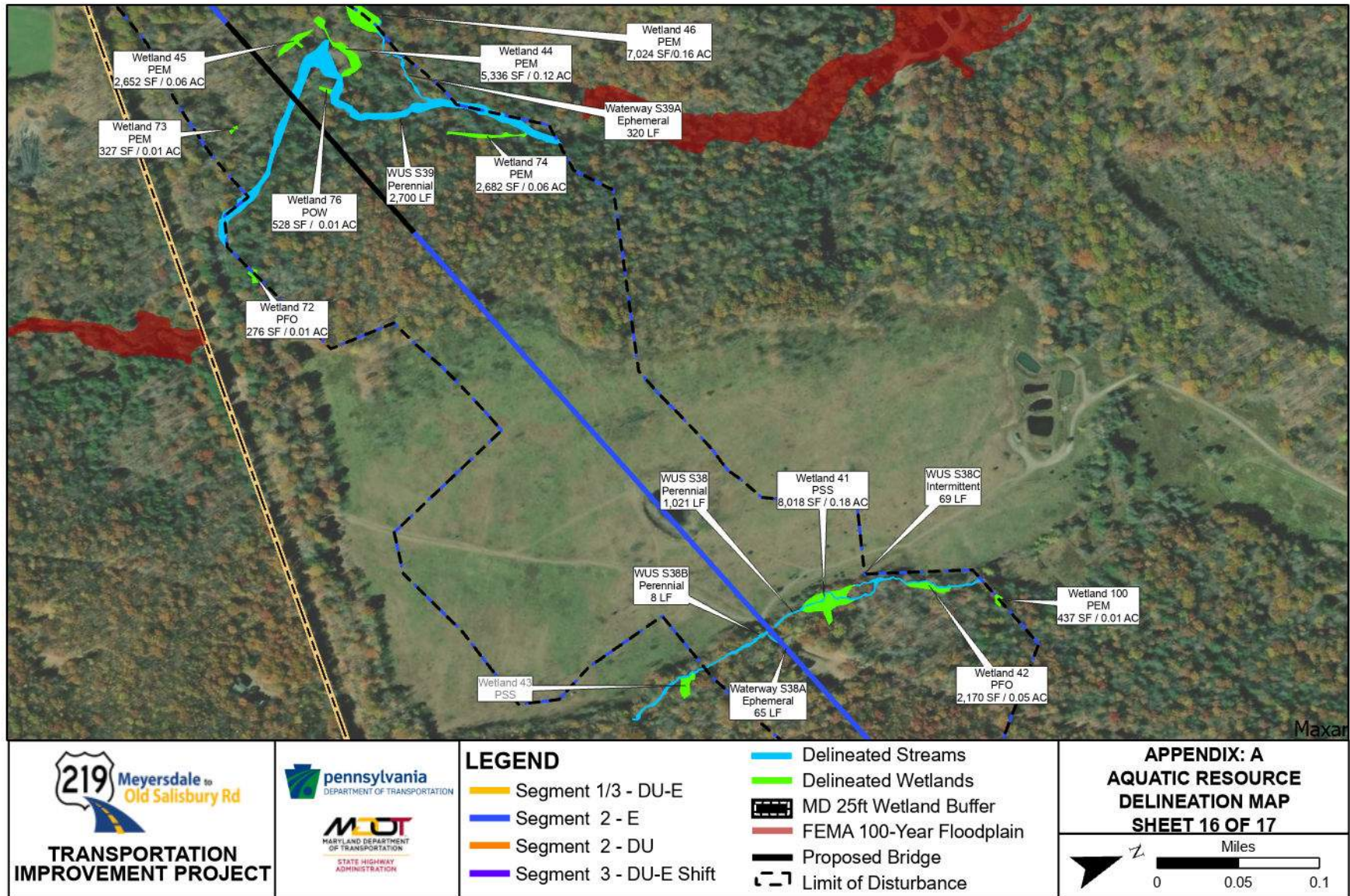
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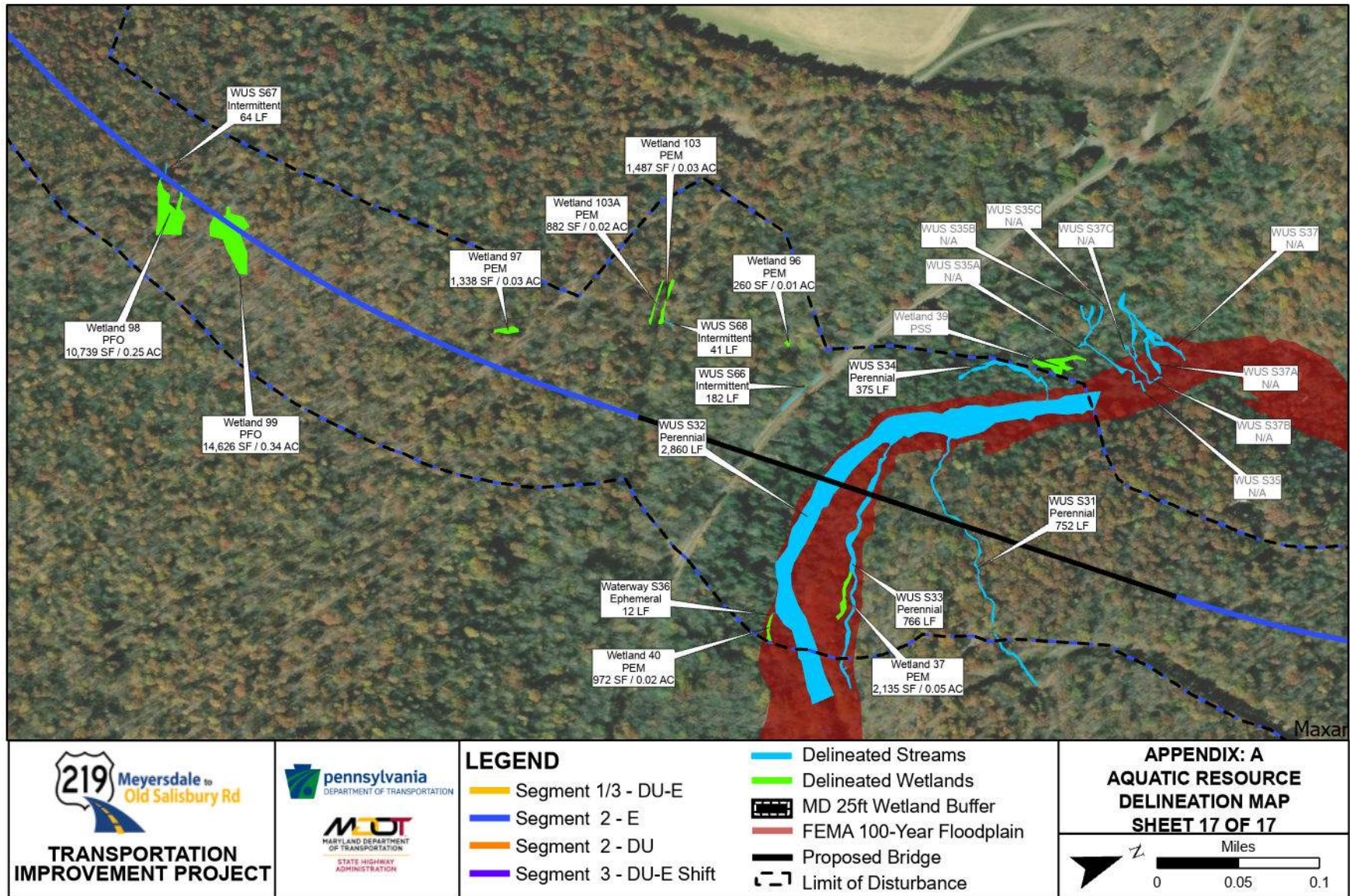
\*Grayed out labels indicated system is entirely outside the project's limits of disturbance





\*Grayed out labels indicated system is entirely outside the project's limits of disturbance





\*Grayed out labels indicated system is entirely outside the project's limits of disturbance

## **APPENDIX B**

### ***Wetland Determination Data Forms – Eastern Mountains and Piedmont Region***

*Pennsylvania*

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W1-DP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.793771 Long: -79.034127 Datum: NAD83  
Soil Map Unit Name: Atkins silt loam, 0 to 3 percent slopes, frequently flooded (At) NWI classification: PEM5A  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Flags W1-1 through W1-36			

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u>		<b>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b>	
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u>			
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W1-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Salix nigra</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85.71%</u> (A/B)
2. <u>Alnus glutinosa</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				
1. <u>Rosa multiflora</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>				
1. <u>Ranunculus acris</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Poa palustris</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Juncus effusus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Lysimachia nummularia</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
5. <u>Impatiens capensis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
6. <u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>115</u> = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W1-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 19 Oct, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W1-DP2  
Investigator(s): A. Hovanec, C. Hovanec Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.793147 Long: -79.032852 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: PEM5A

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:  
Flags W1-1 through W1-36

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W1-DP2

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Cornus amomum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Lonicera morrowii</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Solidago gigantea</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Poa palustris</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Symphyotrichum lateriflorum</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Euthamia graminifolia</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
5. <u>Solidago speciosa</u>	<u>10</u>	<u>N</u>	<u>UPL</u>	
6. <u>Galium mollugo</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
7. <u>Juncus effusus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
8. <u>Epilobium coloratum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
9. <u>Geum laciniatum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>60</u> 20% of total cover: <u>24</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)  Solidago speciosa is not listed on the NWPL and its indicator status is assumed to be UPL.  Moss was noted on the ground surface at the data point.				

## SOIL

Sampling Point: W1-DP2

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W2-DP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-8  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.794288 Long: -79.034499 Datum: NAD83  
Soil Map Unit Name: Atkins silt loam, 0 to 3 percent slopes, frequently flooded (At) NWI classification: PEM5A  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: The wetland is located in a ditch in a residential yard. Flags W2-1 through W2-37 (no flag 34 or 36)			

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1-2</u>	Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W2-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Salix nigra</u>	20	Y	OBL	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Herb Stratum (Plot size: <u>5 feet</u> )																		
1. <u>Ranunculus acris</u>	90	Y	FAC	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. <u>Solidago rugosa</u>	30	Y	FAC															
3. <u>Alliaria petiolata</u>	5	N	FACU															
4. <u>Poa palustris</u>	5	N	FACW															
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
<u>130</u> = Total Cover 50% of total cover: <u>65</u> 20% of total cover: <u>26</u>																		
Woody Vine Stratum (Plot size: <u>30 feet</u> )																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

## SOIL

Sampling Point: W2-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W4-DP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain depression Local relief (concave, convex, none): Concave Slope (%): 0-8  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.787460 Long: -79.033362 Datum: NAD83  
Soil Map Unit Name: Fluvaquents (FV) NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:  
Flags W4-1 through W4-7.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1  
Water Table Present? Yes ☒ No ☐ Depth (inches): 4  
Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W4-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. <u>Robinia pseudoacacia</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)																																
2. <u>Prunus serotina</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>7</u> (B)																																
3. <u>Carpinus caroliniana</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71.43%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u> (A)</td> <td></td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u> (A)		<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u> (A)		<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
$\frac{25}{50\% \text{ of total cover: } 12.5} = \text{Total Cover}$																																				
$\frac{25}{20\% \text{ of total cover: } 5} = \text{Total Cover}$																																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																																				
1. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>																																	
2. <u>Sambucus nigra</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
3. <u>Prunus serotina</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																																	
4. <u>Rosa multiflora</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
$\frac{30}{50\% \text{ of total cover: } 15} = \text{Total Cover}$				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
$\frac{30}{20\% \text{ of total cover: } 6} = \text{Total Cover}$																																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																																				
1. <u>Symplocarpus foetidus</u>	<u>90</u>	<u>Y</u>	<u>OBL</u>																																	
2. <u>Symphytotrichum lateriflorum</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>																																	
3. <u>Poa palustris</u>	<u>20</u>	<u>N</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
4. <u>Phalaris arundinacea</u>	<u>20</u>	<u>N</u>	<u>FACW</u>																																	
5. <u>Symphytum officinale</u>	<u>15</u>	<u>N</u>	<u>UPL</u>																																	
6. <u>Impatiens capensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																																	
7. <u>Alliaria petiolata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																																	
8. <u>Galium mollugo</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
9. <u>Galium asprellum</u>	<u>5</u>	<u>N</u>	<u>OBL</u>																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
$\frac{205}{50\% \text{ of total cover: } 102.5} = \text{Total Cover}$																																				
$\frac{205}{20\% \text{ of total cover: } 41} = \text{Total Cover}$				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
5. _____	_____	_____	_____																																	
$\text{_____} = \text{Total Cover}$																																				
$50\% \text{ of total cover: } 0 \quad 20\% \text{ of total cover: } 0$																																				
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)  Symphytum officinale is not listed on the NWPL and is assumed to have an upland indicator status.																																				

## SOIL

Sampling Point: W4-DP1

Profile Description: (Describe to the depth needed to document the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10 YR 2/2	100					Lo	Organics
3-11	10 YR 4/1	80	2.5 YR 3/6	10			SaLo	Oxidized root channels
			2.5 Y 6/6	10				
11-18	7.5 YR 4/1	80	2.5 YR 4/4	20			LoSa	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input checked="" type="checkbox"/> <b>(MLRA 147, 148)</b>			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> <b>(MLRA 136, 147)</b>			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b> <b>MLRA 147, 148</b> )	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b> <b>MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

**Restrictive Layer (if observed):**  
Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes ☒    No ☐

Remarks:

Soil saturated throughout the wetland.

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W4-UP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): flat Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.787489 Long: -79.033468 Datum: NAD83  
Soil Map Unit Name: Fluvaquents (FV) NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W4-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Solidago rugosa</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Phalaris arundinacea</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Symphytum officinale</u>	<u>15</u>	<u>N</u>	<u>UPL</u>	
4. <u>Symplocarpus foetidus</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
5. <u>Galium mollugo</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u>Securigera varia</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____
Symphytum officinale and Securigera varia are not listed on the NWPL and are assumed to have an upland indicator status.				

## SOIL

Sampling Point: W4-UP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W5-DP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.786398 Long: -79.032751 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:  
Flags W5-1 through W5-18.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5  
Water Table Present? Yes ☒ No ☐ Depth (inches): 8  
Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Attached algae was observed within the wetland.



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W5-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																								
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)																								
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)																								
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																								
7. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:	OBL species	<u>0</u>	x 1 = <u>0</u>	FACW species	<u>0</u>	x 2 = <u>0</u>	FAC species	<u>0</u>	x 3 = <u>0</u>	FACU species	<u>0</u>	x 4 = <u>0</u>	UPL species	<u>0</u>	x 5 = <u>0</u>	Column Totals:	<u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>		
Total % Cover of:		Multiply by:																										
OBL species	<u>0</u>	x 1 = <u>0</u>																										
FACW species	<u>0</u>	x 2 = <u>0</u>																										
FAC species	<u>0</u>	x 3 = <u>0</u>																										
FACU species	<u>0</u>	x 4 = <u>0</u>																										
UPL species	<u>0</u>	x 5 = <u>0</u>																										
Column Totals:	<u>0</u> (A)	<u>0</u> (B)																										
Prevalence Index = B/A = <u>0</u>																												
_____ = Total Cover																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																												
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____																												
_____ = Total Cover																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																												
<b>Herb Stratum (Plot size: 5 feet )</b> 1. <i>Phalaris arundinacea</i> 80 Y FACW 2. <i>Juncus effusus</i> 25 N FACW 3. <i>Eupatorium perfoliatum</i> 10 N FACW 4. <i>Euthamia graminifolia</i> 10 N FAC 5. <i>Equisetum arvense</i> 5 N FAC 6. <i>Galium mollugo</i> 5 N FACU 7. <i>Dipsacus fullonum</i> 5 N FACU 8. _____ 9. _____ 10. _____ 11. _____																												
_____ = Total Cover																												
50% of total cover: <u>70</u> 20% of total cover: <u>28</u>																												
<b>Woody Vine Stratum (Plot size: 30 feet )</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____																												
_____ = Total Cover																												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																												
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																								

## SOIL

Sampling Point: W5-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Sommerset Co. Sampling Date: 24 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W6-DP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.786383 Long: -79.032794 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

#### Remarks:

Wetland is located within a constructed swale.  
Flags W6-1 through W6-23.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5  
Water Table Present? Yes ☒ No ☐ Depth (inches): 8  
Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

#### Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W6-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Solidago gigantea</u>	<u>80</u>	<u>Y</u>	<u>FACW</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. <u>Juncus effusus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
3. <u>Dipsacus fullonum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. <u>Galium mollugo</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>52.5</u> 20% of total cover: <u>21</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

## SOIL

Sampling Point: W6-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W5&W6-UP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 0-1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.786795 Long: -79.032915 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

Data point was taken on a constructed berm located behind a residential shed.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W5/W6-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																																
1. <u>Picea abies</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)																																																
2. <u>Juglans nigra</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)																																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20%</u> (A/B)																																																
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>0</u>																																																
<u>55</u> = Total Cover 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																																
<u>115</u> = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																																
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>																																																
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Absolute % Cover</th> <th>Dominant Species?</th> <th>Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Alliaria petiolata</u></td><td><u>50</u></td><td><u>Y</u></td><td><u>FACU</u></td></tr> <tr><td>2. <u>Solidago rugosa</u></td><td><u>20</u></td><td><u>Y</u></td><td><u>FAC</u></td></tr> <tr><td>3. <u>Cirsium arvense</u></td><td><u>15</u></td><td><u>N</u></td><td><u>FACU</u></td></tr> <tr><td>4. <u>Galium mollugo</u></td><td><u>10</u></td><td><u>N</u></td><td><u>FACU</u></td></tr> <tr><td>5. <u>Rumex crispus</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FAC</u></td></tr> <tr><td>6. <u>Arctium minus</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACU</u></td></tr> <tr><td>7. <u>Dipsacus fullonum</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACU</u></td></tr> <tr><td>8. <u>Glechoma hederacea</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACU</u></td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>						Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Alliaria petiolata</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>	2. <u>Solidago rugosa</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	3. <u>Cirsium arvense</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	4. <u>Galium mollugo</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	5. <u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	6. <u>Arctium minus</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	7. <u>Dipsacus fullonum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	8. <u>Glechoma hederacea</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	9. _____	_____	_____	_____	10. _____	_____	_____	_____	11. _____	_____	_____	_____
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<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Absolute % Cover</th> <th>Dominant Species?</th> <th>Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>						Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____																								
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4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
Remarks: (Include photo numbers here or on a separate sheet.) Picea abies is not listed on the NWPL and is assumed to have an upland indicator status.																																																				

## SOIL

Sampling Point: W5/W6-UP<sub>1</sub>

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Sommerset Co. Sampling Date: 25 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W7-DP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.791222 Long: -79.034454 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

#### Remarks:

Data point located at the toe of slope.  
Flags W7-1 through W7-34; the wetland is open ended.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)
____ Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
____ Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 16  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

#### Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W7-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. <u>Elaeagnus umbellata</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
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Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>0</u>																				
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____	_____	_____	_____																	
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																				
1. <u>Cornus amomum</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Crataegus sp.</u>	<u>20</u>	<u>--</u>	<u>NS</u>																	
3. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
4. <u>Sambucus nigra</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																				
1. <u>Solidago gigantea</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Juncus effusus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>																	
3. <u>Symplocarpus foetidus</u>	<u>10</u>	<u>N</u>	<u>OBL</u>																	
4. <u>Potentilla indica</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
5. <u>Carex vulpinoidea</u>	<u>5</u>	<u>N</u>	<u>OBL</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)  The Crataegus species was unidentifiable and was not included in the Dominance test.  Elaeagnus umbellata is not listed on the NWPL and is assumed to have an upland indicator status.																				

## SOIL

Sampling Point: W7-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 25 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W7A-DP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Flat Slope (%): 0-4  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.791892 Long: -79.034836 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:

Flags W7a-1 through W7a-4 O.E.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input checked="" type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Moss was observed growing on rocks and the ground surface within the wetland.



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W7A-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. <u>Crataegus sp.</u>	<u>5</u>	<u>--</u>	<u>NS</u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>0</u>
<u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<u>95</u> = Total Cover 50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				
Remarks: (Include photo numbers here or on a separate sheet.) The Crataegus species was unidentifiable and was not included in the Dominance test.				

## SOIL

Sampling Point: W7A-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 25 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W7-UP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.792063 Long: -79.034882 Datum: NAD83  
Soil Map Unit Name: Wharton silt loam, 3 to 8 percent slopes (WhB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W7-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Sambucus nigra</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</u>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Oclemena acuminata</u>	<u>90</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Solidago canadensis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
3. <u>Euthamia graminifolia</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
4. <u>Lolium perenne</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>52.5</u> 20% of total cover: <u>21</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)          				

## SOIL

Sampling Point: W7-UP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Sommerset Co. Sampling Date: 25 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W8-DP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain terrace Local relief (concave, convex, none): Concave Slope (%): 0-10  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.787109 Long: -79.031777 Datum: NAD83  
Soil Map Unit Name: Fluvaquents (FV) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

#### Remarks:

Data point located at the toe of slope.  
Flags W8-1 through W8-3.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1-2

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 3

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

#### Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W8-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum (Plot size: 5 feet )</b>				
1. <i>Poa palustris</i>	70	Y	FACW	
2. <i>Solidago gigantea</i>	25	Y	FACW	
3. <i>Symphyotrichum lateriflorum</i>	25	Y	FACW	
4. <i>Leersia oryzoides</i>	15	N	OBL	
5. <i>Rumex crispus</i>	5	N	FAC	
6. <i>Hydrophyllum virginianum</i>	5	N	FAC	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
145 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>72.5</u> 20% of total cover: <u>29</u>				
<b>Woody Vine Stratum (Plot size: 30 feet )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

**Hydrophytic Vegetation Present?**
 Yes ☒ No ☐

## SOIL

Sampling Point: W8-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 25 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W8-UP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0-1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.787143 Long: -79.031678 Datum: NAD83  
Soil Map Unit Name: Fluvaquents (FV) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W8-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Robinia pseudoacacia</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
5 = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. <u>Lonicera morrowii</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Crataegus sp.</u>	<u>5</u>	<u>--</u>	<u>NS</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10 = Total Cover				
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Solidago gigantea</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Symphyotrichum lateriflorum</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Symphytum officinale</u>	<u>15</u>	<u>N</u>	<u>UPL</u>	
4. <u>Glechoma hederacea</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. <u>Alliaria petiolata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u>Galium mollugo</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
7. <u>Securigera varia</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
8. <u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
115 = Total Cover				
50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.) Symphytum officinale and Securigera varia are not listed on the NWPL and are assumed to have an upland indicator status.				

## SOIL

Sampling Point: W8-UP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 26 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W9-DP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Flat Slope (%): 0-2  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.784764 Long: -79.030890 Datum: NAD83  
Soil Map Unit Name: Ernest silt loam, 3 to 8 percent slopes (ErB) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:

Flags W9-1 through W9-20 O.E.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1  
Water Table Present? Yes ☒ No ☐ Depth (inches): 12  
Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

A rivulet of flowing water, less than one inch deep, was observed within the wetland.



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W9-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. <u>Acer saccharum</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u></td> <td>(A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
50% of total cover: <u>5</u> 20% of total cover: <u>2</u> <u>10</u> = Total Cover																																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																																				
1. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
50% of total cover: <u>10</u> 20% of total cover: <u>4</u> <u>20</u> = Total Cover																																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																																				
1. <u>Impatiens capensis</u>	<u>70</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
2. <u>Poa palustris</u>	<u>60</u>	<u>N</u>	<u>FACW</u>																																	
3. <u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
50% of total cover: <u>67.5</u> 20% of total cover: <u>27</u> <u>135</u> = Total Cover																																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u> _____ = Total Cover																																				
Remarks: (Include photo numbers here or on a separate sheet.)																																				

## SOIL

Sampling Point: W9-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 26 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W9-UP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0-1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.784636 Long: -79.031048 Datum: NAD83  
Soil Map Unit Name: Ernest silt loam, 3 to 8 percent slopes (ErB) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

Data point is located in a maintained lawn.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W9-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Fraxinus pennsylvanica</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)														
2. <u>Acer saccharum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
3. <u>Acer rubrum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Lonicera morrowii</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Poa pratensis</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Glechoma hederacea</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
3. <u>Fragaria vesca</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. <u>Solidago canadensis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. <u>Potentilla simplex</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. <u>Impatiens capensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
7. <u>Lactuca canadensis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
8. <u>Geum laciniatum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>95</u> = Total Cover 50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)  Moss was observed growing within the lawn.				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>														



## SOIL

Sampling Point: W9-UP1

[illegible]

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 01 Jun, 2022

Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W11-DP1

Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-10

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.780234 Long: -79.030633 Datum: NAD83

Soil Map Unit Name: Rayne-Gilpin channery silt loams, 8 to 15 percent slopes (RgC) NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:  The wetland is located partially on a hillslope that extends down into a depression.  Flags W11-1 through W11-23.			

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W11-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.33%</u> (A/B)														
2. <u>Acer saccharum</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Fagus grandifolia</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>65</u> = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Acer rubrum</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Symplocarpus foetidus</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>															
2. <u>Impatiens capensis</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Poa palustris</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
4. <u>Viola lanceolata</u>	<u>10</u>	<u>N</u>	<u>OBL</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>110</u> = Total Cover 50% of total cover: <u>55</u> 20% of total cover: <u>22</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														

## SOIL

Sampling Point: W11-DP1

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 01 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W11-UP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Flat Slope (%): 0-10  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.780143 Long: -79.030483 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 8 to 15 percent slopes (RgC) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W11-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. <u>Fagus grandifolia</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Rubus allegheniensis</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Smilax rotundifolia</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
3. <u>Dryopteris marginalis</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>

## SOIL

Sampling Point: W11-UP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	2.5 Y 2.5/1	100					Si	
3-12	2.5 Y 5/6	100					SaLo	with 5% gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> <b>(MLRA 147, 148)</b>			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> <b>(MLRA 136, 147)</b>			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>				
<input type="checkbox"/> <b>MLRA 147, 148)</b>	<input type="checkbox"/> <b>MLRA 136)</b>				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122)</b>				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148)</b>				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147)</b>				

**Restrictive Layer (if observed):**  
Type: Gravel  
  
Depth (inches): 12

Hydric Soil Present?    Yes \_\_\_\_\_ No ☒

Remarks:  
  
Soils appeared to be disturbed.

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 02 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W12-DP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace, Floodplain Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.787853 Long: -79.034124 Datum: NAD83  
Soil Map Unit Name: Atkins silt loam, 0 to 3 percent slopes, frequently flooded (At) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:  Flags W12-1 through W12-12.			

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>		<b>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>			
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u> (includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W12-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>
7. _____	_____	_____	_____	
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>0</u>    20% of total cover: <u>0</u></div>				<div>Total % Cover of:      Multiply by:</div> <div>OBL species <u>0</u> x 1 = <u>0</u></div> <div>FACW species <u>0</u> x 2 = <u>0</u></div> <div>FAC species <u>0</u> x 3 = <u>0</u></div> <div>FACU species <u>0</u> x 4 = <u>0</u></div> <div>UPL species <u>0</u> x 5 = <u>0</u></div> <div>Column Totals: <u>0</u> (A)      <u>0</u> (B)</div> <div>Prevalence Index = B/A = <u>0</u></div>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Salix nigra</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>30</u>    20% of total cover: <u>12</u></div>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Euthamia graminifolia</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Impatiens capensis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
3. <u>Symplocarpus foetidus</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
4. <u>Poa palustris</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>37.5</u>    20% of total cover: <u>15</u></div>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>0</u>    20% of total cover: <u>0</u></div>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W12-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 02 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W14-DP1  
Investigator(s): B. Marks, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-8  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.786665 Long: -79.033471 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Wetland flags W14-1 through W14-10.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)
____ Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 6  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 16  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

A spring house is located near the data point.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W14-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u></td> <td>(A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
_____ = Total Cover	_____	_____	_____																																	
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																																			
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
1. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
_____ = Total Cover	<u>10</u>	_____	_____																																	
50% of total cover: <u>5</u>	20% of total cover: <u>2</u>																																			
Herb Stratum (Plot size: <u>5 feet</u> )				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
1. <u>Impatiens capensis</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>																																	
2. <u>Onoclea sensibilis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																																	
3. <u>Alliaria petiolata</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																																	
4. <u>Rumex crispus</u>	<u>10</u>	<u>N</u>	<u>FAC</u>																																	
5. <u>Galium asprellum</u>	<u>10</u>	<u>N</u>	<u>OBL</u>																																	
6. <u>Symplocarpus foetidus</u>	<u>5</u>	<u>N</u>	<u>OBL</u>																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
_____ = Total Cover	<u>115</u>	_____	_____																																	
50% of total cover: <u>57.5</u>	20% of total cover: <u>23</u>																																			
Woody Vine Stratum (Plot size: <u>30 feet</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
_____ = Total Cover	_____	_____	_____																																	
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																																			
Remarks: (Include photo numbers here or on a separate sheet.)																																				



## SOIL

Sampling Point: W14-DP1

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 08 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W15-DP1  
Investigator(s): C.Sullivan, C.Houlihan Section, Township, Range: NA

Landform (hillslope, terrace, etc.): Terrace, Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-8

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.771824 Long: -79.030494 Datum: NAD83

Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Remarks:

Wetland is a large wetland complex with multiple small rivulets running through it and many large boulders. Wetland is bounded along the western edge by an historic stone wall.

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):           

Water Table Present? Yes ☒ No ☐ Depth (inches): 8

Saturation Present? Yes ☒ No ☐ Depth (inches): 6  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

### Remarks:

Flowing water was occasionally visible under the large boulders.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W15-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Betula lenta</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. <u>Quercus rubra</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>7</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>42.86%</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <div>                         Total % Cover of:                          OBL species <u>5</u>                          FACW species <u>100</u>                          FAC species <u>30</u>                          FACU species <u>55</u>                          UPL species <u>0</u>                          Column Totals: <u>190</u> (A)                     </div> <div>                         Multiply by:                          x 1 = <u>5</u>                          x 2 = <u>200</u>                          x 3 = <u>90</u>                          x 4 = <u>220</u>                          x 5 = <u>0</u>                          (B) <u>515</u> </div> </div> <div style="text-align: right;">                         Prevalence Index = B/A = <u>2.7</u> </div>
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<u>125</u> = Total Cover 50% of total cover: <u>62.5</u> 20% of total cover: <u>25</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <u>      </u>
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W15-DP1

[illegible]



# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 08 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W16-DP1  
Investigator(s): B. Marks, A. Hovanec Section, Township, Range: NA

Landform (hillslope, terrace, etc.): Terrace, Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-8

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.770891 Long: -79.030100 Datum: NAD83

Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: None

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Remarks:

Wetland is adjacent to Stream S7A. Many large rocks are within the wetland and flowing water was observed under these rocks.  
Flags W16-1/S7A-38 through W16-8/S7A-40.

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input checked="" type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5

Water Table Present? Yes ☒ No ☐ Depth (inches): 4

Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

### Remarks:

Flowing water was occasionally visible under the large rocks.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W16-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Quercus bicolor</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>12</u> (A)  Total Number of Dominant Species Across All Strata: <u>13</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>92.31%</u> (A/B)
2. <u>Ulmus rubra</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Acer rubrum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				
1. <u>Acer rubrum</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Ulmus rubra</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Vaccinium corymbosum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>				
1. <u>Rubus hispidus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Symplocarpus foetidus</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Osmundastrum cinnamomeum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Oclemena acuminata</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
5. <u>Phalaris arundinacea</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
6. <u>Parathelypteris noveboracensis</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
7. <u>Osmunda claytoniana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
8. <u>Carex scoparia</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
9. <u>Medeola virginiana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
10. <u>Viola cucullata</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
11. _____	_____	_____	_____	
<u>90</u> = Total Cover 50% of total cover: <u>45</u> 20% of total cover: <u>18</u>				
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>				
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____				
Remarks: (Include photo numbers here or on a separate sheet.)  Sphagnum moss was observed on the ground surface.				

## SOIL

Sampling Point: W16-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 08 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W15/W16-UP1  
Investigator(s): C. Sullivan, C. Houlihan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.770744 Long: -79.030253 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W15/W16-UP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Acer rubrum</i>	40	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. <i>Betula lenta</i>	30	Y	FACU	
3. <i>Acer saccharum</i>	30	Y	FACU	
4. <i>Prunus serotina</i>	10	N	FACU	
5. <i>Quercus rubra</i>	5	N	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
115 = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
20 = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>				
1. <i>Acer saccharum</i>	10	Y	FACU	
2. <i>Magnolia acuminata</i>	10	Y	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50 = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				
<b>Herb Stratum (Plot size: 5 feet )</b>				
1. <i>Parathelypteris noveboracensis</i>	20	Y	FAC	
2. <i>Medeola virginiana</i>	10	Y	FAC	
3. <i>Osmunda claytoniana</i>	5	N	FAC	
4. <i>Dioscorea villosa</i>	5	N	FAC	
5. <i>Quercus rubra</i>	5	N	FACU	
6. <i>Asteraceae</i> sp.	5	N	NS	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50 = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				
<b>Woody Vine Stratum (Plot size: 30 feet )</b>				
1. <i>Smilax rotundifolia</i>	20	Y	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
20 = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
Remarks: (Include photo numbers here or on a separate sheet.)  The <i>Asteraceae</i> species was unidentifiable and was not assigned an indicator status.				

## SOIL

Sampling Point: W15/W16-U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10 YR 2/1	100					Lo	
2-5	10 YR 4/2	100					SaLo	
5-10	10 YR 5/4	90	7.5 YR 4/6	10			Sa	
10-14	10 YR 6/3	100					SaLo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> ( <b>MLRA 147, 148</b> )			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> ( <b>MLRA 136, 147</b> )			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>				
<input type="checkbox"/> <b>MLRA 147, 148</b> )	<input type="checkbox"/> <b>MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

**Restrictive Layer (if observed):**  
Type: Rock  
Depth (inches): 14

Hydric Soil Present?    Yes \_\_\_\_\_ No ☒

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 20 Oct, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W17-DP1  
Investigator(s): A. Hovanec, C. Hovanec Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.767106 Long: -79.034160 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Flags W17-1 through W17-15 and W17-A through W17-G.

### 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)
<input checked="" type="checkbox"/> Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
____ Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1/2  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 2  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W17-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																																
1. <u>Betula alleghaniensis</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)																																																
2. <u>Acer rubrum</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>7</u> (B)																																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																																
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>0</u>																																																
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																																
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																																
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																																
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Parathelypteris noveboracensis</u></td><td><u>20</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>2. <u>Rubus hispidus</u></td><td><u>15</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>3. <u>Vaccinium corymbosum</u></td><td><u>10</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>						Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Parathelypteris noveboracensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	2. <u>Rubus hispidus</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	3. <u>Vaccinium corymbosum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	4. _____	_____	_____	_____	5. _____	_____	_____	_____	6. _____	_____	_____	_____	7. _____	_____	_____	_____	8. _____	_____	_____	_____	9. _____	_____	_____	_____	10. _____	_____	_____	_____	11. _____	_____	_____	_____
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<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Smilax rotundifolia</u></td><td><u>15</u></td><td><u>Y</u></td><td><u>FAC</u></td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>						Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Smilax rotundifolia</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____																								
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2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
Remarks: (Include photo numbers here or on a separate sheet.) Sphagnum moss was present on the ground surface.																																																				



## SOIL

Sampling Point: **W17-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	7.5 YR 2.5/2	100					Lo	Decaying organics
2-8	7.5 YR 2.5/1	95	10 YR 4/4	5	D	PL	v fine SaLo	
8-15	2.5 Y 5/1	90	2.5 Y 5/4	10	D	M	Sa	
15-18	10 YR 5/26	50	N 6/1	40	D	M	SaLo	
			5 YR 5/8	10	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 09 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W17-DP2  
Investigator(s): C. Sullivan, C. Houlihan, B. Marks, A. Hovanec Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.766138 Long: -79.034426 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Flags W17-1 through W17-15 and W17-A through W17-G.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 4  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Some surface water was present throughout the wetland but not present where W17-DP2 was taken. Data point was taken in a transition zone at the edge of the wetland.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W17-DP2

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)														
2. <u>Betula lenta</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Acer pennsylvanicum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Quercus biclor</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Quercus rubra</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Magnolia acuminata</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
4. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
5. <u>Nyssa sylvatica</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Osmunda claytoniana</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Osmundastrum cinnamomeum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Polygonatum pubescens</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. <u>Oclemena acuminata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. <u>Medeola virginiana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
6. <u>Rubus hispidus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
7. <u>Symplocarpus foetidus</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____																		

Remarks: (Include photo numbers here or on a separate sheet.)  
  
 Sphagnum moss and club moss was present on the ground surface.

## SOIL

Sampling Point: W17-DP2

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 09 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W17-DP3  
Investigator(s): C. Sullivan, C. Houlihan, B. Marks, A. Hovanec Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.766627 Long: -79.034099 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Flags W17-1 through W17-15 and W17-A through W17-G.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 12  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 10  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W17-DP3

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>9</u> (A)  Total Number of Dominant Species Across All Strata: <u>12</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)														
2. <u>Quercus bicolor</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Betula alleghaniensis</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
4. <u>Magnolia acuminata</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
5. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____	_____	_____	_____															
<div style="text-align: right;"> <u>65</u> = Total Cover                      50% of total cover: <u>32.5</u>    20% of total cover: <u>13</u> </div>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<div style="text-align: right;"> <u>5</u> = Total Cover                      50% of total cover: <u>2.5</u>    20% of total cover: <u>1</u> </div>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Osmundastrum cinnamomeum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. <u>Medeola virginiana</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Parathelypteris noveboracensis</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
4. <u>Quercus bicolor</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>															
5. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
6. <u>Trillium flexipes</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
7. <u>Galearis spectabilis</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<div style="text-align: right;"> <u>45</u> = Total Cover                      50% of total cover: <u>22.5</u>    20% of total cover: <u>9</u> </div>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Smilax rotundifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
<div style="text-align: right;"> <u>20</u> = Total Cover                      50% of total cover: <u>10</u>    20% of total cover: <u>4</u> </div>																		
Remarks: (Include photo numbers here or on a separate sheet.)  Galearis spectabilis is not listed on the NWPL and is therefore assumed to have an upland indicator status.																		

## SOIL

Sampling Point: W17-DP3

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 09 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W17-UP1  
Investigator(s): C. Sullivan, C. Houlihan, B. Marks, A. Hovanec Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%):         
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.766489 Long: -79.033688 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification:       

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

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

### Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W17-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Quercus rubra</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>9</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>22.22%</u> (A/B)														
2. <u>Acer saccharum</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Magnolia acuminata</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
4. <u>Betula alleghaniensis</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
5. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</u>														
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																		
1. <u>Acer saccharum</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>														
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																		
1. <u>Medeola virginiana</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Acer saccharum</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Vaccinium corymbosum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )														
4. <u>Dioscorea villosa</u>	<u>3</u>	<u>N</u>	<u>FAC</u>															
5. <u>Nyssa sylvatica</u>	<u>3</u>	<u>N</u>	<u>FAC</u>															
6. <u>Quercus bicolor</u>	<u>2</u>	<u>N</u>	<u>FACW</u>															
7. <u>Magnolia acuminata</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	1. <u>Smilax rotundifolia</u>														
8. <u>Sassafras albidum</u>	<u>2</u>	<u>N</u>	<u>FACU</u>															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____	_____ = Total Cover 50% of total cover: <u>13.5</u> 20% of total cover: <u>5.4</u>														
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																		
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____	5. _____ = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>														
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)														
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)																		
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)																		
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)																		



## SOIL

Sampling Point: W17-UP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 09 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W18-DP1  
Investigator(s): C. Sullivan, A. Hovanec Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.767271 Long: -79.033839 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Flags W18-1 through W18-8.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0.5  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Wetland originates from a seep upslope and drains into Stream S8.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W18-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)														
2. <u>Sassafras albidum</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Betula alleghaniensis</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
4. <u>Magnolia acuminata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
35 = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Vaccinium corymbosum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Osmundastrum cinnamomeum</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Medeola virginiana</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
3. <u>Symplocarpus foetidus</u>	<u>5</u>	<u>N</u>	<u>OBL</u>															
4. <u>Parathelypteris noveboracensis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
5. <u>Asteraceae sp.</u>	<u>5</u>	<u>N</u>	<u>NS</u>															
6. <u>Trillium flexipes</u>	<u>3</u>	<u>N</u>	<u>FAC</u>	45 = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>														
7. <u>Galearis spectabilis</u>	<u>2</u>	<u>N</u>	<u>UPL</u>															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____	<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>														
11. _____	_____	_____	_____															
1. <u>Smilax rotundifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____	20 = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>														
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															

Remarks: (Include photo numbers here or on a separate sheet.)  
  
 The aster species was unidentifiable and was not included in the Dominance test.  
  
 Galearis spectabilis is not listed on the NWPL and is assumed to have an upland indicator status.  
  
 Moss was present on rocks and the round surface.

## SOIL

Sampling Point: W18-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 08 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W19-DP1  
Investigator(s): C. Sullivan, C. Houlihan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.775890 Long: -79.029387 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (HbD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Flags W19-1 through W19-16.	

### 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)
<input checked="" type="checkbox"/> Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)
Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0.5</u>		
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>4</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:  Site experienced heavy rain within the last 24 hours of the site visit.		



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W19-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ulmus rubra</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>9</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>90%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
5 = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>2.5</u>		20% of total cover: <u>1</u>		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Spiraea tomentosa</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Hamamelis virginiana</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Ulmus rubra</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Cornus amomum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
40 = Total Cover				
50% of total cover: <u>20</u>		20% of total cover: <u>8</u>		
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Onoclea sensibilis</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Iris pseudacorus</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Juncus effusus</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Carex crinita</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
5. <u>Lythrum salicaria</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
6. <u>Solidago gigantea</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
7. <u>Symphytotrichum novae-angliae</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
8. <u>Impatiens capensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
9. <u>Carex scoparia</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
10. <u>Carex lurida</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
11. <u>Eupatorium perfoliatum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
100 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W19-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10 YR 3/2	100					SaLo	
1-7	10 YR 5/2	75	10 YR 6/8	20			SaLo	with 10% gravel
			5 YR 4/6	5				

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> ( <b>MLRA 147, 148</b> )			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> ( <b>MLRA 136, 147</b> )			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N, MLRA 147, 148</b> )	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N, MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

Restrictive Layer (if observed):

Type: gravel

Depth (inches): 7 inches

Hydric Soil Present?    Yes ✓    No \_\_\_\_\_

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 02 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W19-UP1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.776029 Long: -79.028972 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (HbD) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

Data point was taken in a maintained residential yard.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

Sampling Point: W19-UP1

Tree Stratum (Plot size: 30 feet )		Absolute % Cover	Dominant Species?	Indicator Status
1.	Quercus rubra	10	Y	FACU
2.	Acer rubrum	5	Y	FAC
3.				
4.				
5.				
6.				
7.				
		15	= Total Cover	
		50% of total cover: 7.5	20% of total cover: 3	
Sapling/Shrub Stratum (Plot size: 15 feet )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
			= Total Cover	
		50% of total cover: 0	20% of total cover: 0	
Herb Stratum (Plot size: 5 feet )				
1.	Poa pratensis	30	Y	FACU
2.	Trifolium repens	20	Y	FACU
3.	Potentilla indica	20	Y	FACU
4.	Hypochaeris radicata	20	Y	UPL
5.	Taraxacum officinale	15	N	FACU
6.	Erigeron pulchellus	15	N	FACU
7.	Trifolium dubium	15	N	UPL
8.	Plantago virginica	10	N	UPL
9.				
10.				
11.				
		145	= Total Cover	
		50% of total cover: 72.5	20% of total cover: 29	
Woody Vine Stratum (Plot size: 30 feet )				
1.				
2.				
3.				
4.				
5.				
			= Total Cover	
		50% of total cover: 0	20% of total cover: 0	

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

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
Total Number of Dominant Species Across All Strata:	6 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	16.67% (A/B)
Prevalence Index worksheet:	
Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 0 (A)	0 (B)
Prevalence Index = B/A = 0	
Hydrophytic Vegetation Indicators:	
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Definitions of Four Vegetation Strata:	
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.	
<b>Hydrophytic Vegetation Present?</b>	Yes _____ No <input checked="" type="checkbox"/>

## SOIL

Sampling Point: W19-UP1

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 20 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W20-DP1  
Investigator(s): C. Sullivan, C. Houlihan, A. Hovanec Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-8  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.786202 Long: -79.031345 Datum: NAD83  
Soil Map Unit Name: Buchanan silt loam, 0 to 8 percent slopes, extremely stony (BxB) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Flags W20-1 through W20-9	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>0.5</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Water Table Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>surface</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>surface</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:  Wetland is located in a constructed stormwater management basin along Mountain Road.			

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W20-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Salix petiolaris</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Typha angustifolia</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Impatiens capensis</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Caltha palustris</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
4. <u>Galium palustre</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
5. <u>Eupatorium perfoliatum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
6. <u>Leersia virginica</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
7. <u>Juncus effusus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
8. <u>Dipsacus fullonum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
9. <u>Hesperis matronalis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
10. <u>Carex scoparia</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
11. <u>Symphyotrichum puniceum</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>62.5</u> 20% of total cover: <u>25</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. <u>Solanum dulcamara</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W20-DP1

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 20 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W21-DP1  
Investigator(s): C. Sullivan, C. Houlihan, A. Hovanec Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.785998 Long: -79.031532 Datum: NAD83  
Soil Map Unit Name: Ernest silt loam, 3 to 8 percent slopes (ErB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Flags W21-1 through W21-17 and W21-UP1 through W21-UP6

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	____ Sparsely Vegetated Concave Surface (B8)
____ True Aquatic Plants (B14)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	____ Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Saturation Visible on Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Microtopographic Relief (D4)
____ Water-Stained Leaves (B9)	____ FAC-Neutral Test (D5)
____ Aquatic Fauna (B13)	

### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1-2  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 9  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Wetland is located in a cut swale along Mountain Road.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W21-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix petiolaris</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
10 = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Cornus amomum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10 = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Typha angustifolia</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Poa palustris</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Carex lurida</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Impatiens capensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
5. <u>Juncus effusus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
6. <u>Galium mollugo</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
7. <u>Hesperis matronalis</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
8. <u>Nasturtium officinale</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
9. <u>Eupatorium perfoliatum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
10. <u>Carex vulpinoidea</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
11. <u>Myosotis scorpioides</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
150 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>75</u> 20% of total cover: <u>30</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



## SOIL

Sampling Point: W21-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 20 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W20/W21-UP1  
Investigator(s): C. Sullivan, C. Houlihan, A. Hovanec Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.786037 Long: -79.031484 Datum: NAD83  
Soil Map Unit Name: Buchanan silt loam, 0 to 8 percent slopes, extremely stony (BxB) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Data point was taken in vegetated area next to the dead end of Mountain Road on the opposite side of the ROW fence from Wetland W21.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W20/W21-UP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																								
1. Robinia pseudoacacia	5	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)																								
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 4 (B)																								
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)																								
<div style="text-align: right;">5 = Total Cover</div> <div>50% of total cover: 2.5    20% of total cover: 1</div>				<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <div>Total % Cover of:</div> <div>Multiply by:</div> </div> <table style="width: 100%;"> <tr> <td>OBL species</td> <td>0</td> <td>x 1 =</td> <td>0</td> </tr> <tr> <td>FACW species</td> <td>0</td> <td>x 2 =</td> <td>0</td> </tr> <tr> <td>FAC species</td> <td>0</td> <td>x 3 =</td> <td>0</td> </tr> <tr> <td>FACU species</td> <td>0</td> <td>x 4 =</td> <td>0</td> </tr> <tr> <td>UPL species</td> <td>0</td> <td>x 5 =</td> <td>0</td> </tr> <tr> <td>Column Totals:</td> <td>0 (A)</td> <td></td> <td>0 (B)</td> </tr> </table> <div style="text-align: right;">Prevalence Index = B/A = 0</div>	OBL species	0	x 1 =	0	FACW species	0	x 2 =	0	FAC species	0	x 3 =	0	FACU species	0	x 4 =	0	UPL species	0	x 5 =	0	Column Totals:	0 (A)		0 (B)
OBL species	0	x 1 =	0																									
FACW species	0	x 2 =	0																									
FAC species	0	x 3 =	0																									
FACU species	0	x 4 =	0																									
UPL species	0	x 5 =	0																									
Column Totals:	0 (A)		0 (B)																									
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>																												
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: 0    20% of total cover: 0</div>																												
<b>Herb Stratum (Plot size: 5 feet )</b>																												
1. Solidago canadensis	50	Y	FACU	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																								
2. Galium mollugo	30	Y	FACU																									
3. Alliaria petiolata	20	N	FACU																									
4. Hesperis matronalis	20	N	FACU																									
5. Holcus lanatus	10	N	FAC																									
6. Rumex crispus	10	N	FAC																									
7. Dipsacus fullonum	5	N	FACU																									
8. Impatiens capensis	5	N	FACW																									
9. _____	_____	_____	_____																									
10. _____	_____	_____	_____																									
11. _____	_____	_____	_____																									
<div style="text-align: right;">150 = Total Cover</div> <div>50% of total cover: 75    20% of total cover: 30</div>																												
<b>Woody Vine Stratum (Plot size: 30 feet )</b>																												
1. Solanum dulcamara	5	Y	FAC	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																								
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
<div style="text-align: right;">5 = Total Cover</div> <div>50% of total cover: 2.5    20% of total cover: 1</div>																												
Remarks: (Include photo numbers here or on a separate sheet.)																												

## SOIL

Sampling Point: W20/W21-U

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 20 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W22-DP1  
Investigator(s): A. Hovanec, B. Marks, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.795057 Long: -79.036225 Datum: NAD83  
Soil Map Unit Name: Armagh silt loam (Ar) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:  
Wetland is located within a swale along the Fi Hoff Lane roadway.

Wetland consists of flags W22-1 through W22-7.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1-2 in  
Water Table Present? Yes ☐ No ☒ Depth (inches):             
Saturation Present? Yes ☐ No ☒ Depth (inches):             
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:  
Wetland contains a hillside seep within the US 219 ROW fence.



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W22-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <i>Typha angustifolia</i>	<u>40</u>	<u>Y</u>	<u>OBL</u>	
2. <i>Mentha spicata</i>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
3. <i>Juncus effusus</i>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
4. <i>Carex vulpinoidea</i>	<u>15</u>	<u>Y</u>	<u>OBL</u>	
5. <i>Eupatorium perfoliatum</i>	<u>10</u>	<u>N</u>	<u>FACW</u>	
6. <i>Poa palustris</i>	<u>10</u>	<u>N</u>	<u>FACW</u>	
7. <i>Symphytotrichum lanceolatum</i>	<u>10</u>	<u>N</u>	<u>FACW</u>	
8. <i>Tussilago farfara</i>	<u>10</u>	<u>N</u>	<u>FACU</u>	
9. <i>Dipsacus fullonum</i>	<u>5</u>	<u>N</u>	<u>FACU</u>	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>72.5</u> 20% of total cover: <u>29</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W22-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 20 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W22-UP1  
Investigator(s): A. Hovanec, B. Marks, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.794934 Long: -79.036171 Datum: NAD83  
Soil Map Unit Name: Atkins silt loam, 0 to 3 percent slopes, frequently flooded (At) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W22-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>30%</u> (A/B)
2. <u>Juglans nigra</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
20 = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. <u>Fraxinus pennsylvanica</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Lonicera morrowii</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Cornus amomum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
25 = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Leucanthemum vulgare</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Solidago canadensis</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Securigera varia</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Galium mollugo</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. <u>Tussilago farfara</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
6. <u>Daucus carota</u>	<u>10</u>	<u>N</u>	<u>UPL</u>	
7. <u>Dipsacus fullonum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
8. <u>Typha angustifolia</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
100 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. <u>Parthenocissus quinquefolia</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Fallopia convolvulus</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
20 = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
Remarks: (Include photo numbers here or on a separate sheet.) Crown vetch ( <i>Securigera varia</i> ) is not listed on the NWPL, and is therefore assumed to be an upland indicator status.				

## SOIL

Sampling Point: W22-UP1

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 21 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W23-DP1  
Investigator(s): A. Hovanec, B. Marks, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.758031 Long: -79.039181 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:  
Wetland consists of flags W23-1 through W23-18.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1-2 in  
Water Table Present? Yes ☒ No ☐ Depth (inches): 12 in  
Saturation Present? Yes ☒ No ☐ Depth (inches): 12 in  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W23-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer rubrum</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.33%</u> (A/B)
2. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				
1. <u>Acer rubrum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Vaccinium corymbosum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Quercus bicolor</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
4. <u>Hamamelis virginiana</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>				
1. <u>Osmundastrum cinnamomeum</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Carex crinita</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
3. <u>Viola cucullata</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
4. <u>Carex lurida</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
5. <u>Medeola virginiana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>65</u> = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>				
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W23-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 22 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W24-DP1  
Investigator(s): A. Hovanec, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 3-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.756828 Long: -79.038470 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Wetland flags W24-1 through W24-7.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
____ True Aquatic Plants (B14)	____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	____ Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Saturation Visible on Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
____ Iron Deposits (B5)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Microtopographic Relief (D4)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	____ FAC-Neutral Test (D5)
____ Aquatic Fauna (B13)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0.5  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 6  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

A seep was noted by wetland flag W24-6.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W24-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Betula lenta</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Athyrium angustum</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Viola cucullata</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Phalaris arundinacea</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Medeola virginiana</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
5. <u>Quercus bicolor</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. <u>Smilax rotundifolia</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				
Remarks: (Include photo numbers here or on a separate sheet.)          				



## SOIL

Sampling Point: W24-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W25-DP1  
Investigator(s): A. Hovanec, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Hillslope, Depression Local relief (concave, convex, none): Concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.758054 Long: -79.039991 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Wetland flags W25-1 through W25-11

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		<input checked="" type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0.5  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 15  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Heavy rain in the area in the past 24 hours.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W25-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>9</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>77.78%</u> (A/B)														
2. <u>Nyssa sylvatica</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Quercus bicolor</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>55</u> = Total Cover 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Nyssa sylvatica</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Rubus hispidus</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Osmunda claytoniana</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Viola cucullata</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
4. <u>Osmundastrum cinnamomeum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
5. <u>Microstegium vimineum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
6. <u>Athyrium angustum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
7. <u>Solidago sp.</u>	<u>10</u>	<u>N</u>	<u>NS</u>															
8. <u>Polygonatum biflorum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>100</u> = Total Cover 50% of total cover: <u>50</u> 20% of total cover: <u>20</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____																		

Remarks: (Include photo numbers here or on a separate sheet.)  
  
 The Solidago species was unidentifiable and was not assigned an indicator status.  
  
 Mosses observed on the ground surface.

## SOIL

Sampling Point: W25-DP1

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W26-DP1  
Investigator(s): A. Hovanec, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Hillslope, depression Local relief (concave, convex, none): Concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.757668 Long: -79.039665 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Wetland flags W26-1 through W26-8.

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	____ Sparsely Vegetated Concave Surface (B8)
____ True Aquatic Plants (B14)	____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	____ Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Saturation Visible on Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)
____ Iron Deposits (B5)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Shallow Aquitard (D3)
____ Water-Stained Leaves (B9)	____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)	____ FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0.5  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 7  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

The area experienced heavy rain the night before.



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W26-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Acer rubrum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
$\frac{10}{10} = \text{Total Cover}$ 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
1. <u>Betula alleghaniensis</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
$\frac{10}{10} = \text{Total Cover}$ 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
Herb Stratum (Plot size: <u>5 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
1. <u>Rubus hispidus</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Osmunda claytoniana</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Medeola virginiana</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
4. <u>Microstegium vimineum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
5. <u>Acer rubrum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
6. <u>Quercus bicolor</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
7. <u>Betula alleghaniensis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
$\frac{55}{55} = \text{Total Cover}$ 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>																		
Woody Vine Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
1. <u>Smilax rotundifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
$\frac{20}{20} = \text{Total Cover}$ 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)  Moss was present on the ground surface. The wetland was well shaded by mature trees, but the majority of the trees were located outside of the wetland.				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														

## SOIL

Sampling Point: W26-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W23/25/26-UP1  
Investigator(s): A. Hovanec, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.757828 Long: -79.039490 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W23/25/26-UP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Quercus montana</i>	20	Y	UPL	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>16</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>37.5%</u> (A/B)
2. <i>Acer rubrum</i>	10	Y	FAC	
3. <i>Quercus rubra</i>	10	Y	FACU	
4. <i>Sassafras albidum</i>	10	Y	FACU	
5. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____	_____	_____	_____	
50% of total cover: <u>25</u> 20% of total cover: <u>10</u> 50 = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>Sapling/Shrub Stratum</b> (Plot size: 15 feet )				
1. <i>Sassafras albidum</i>	10	Y	FACU	
2. <i>Betula lenta</i>	5	Y	FACU	
3. <i>Hamamelis virginiana</i>	5	Y	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
50% of total cover: <u>10</u> 20% of total cover: <u>4</u> 20 = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
<b>Herb Stratum</b> (Plot size: 5 feet )				
1. <i>Medeola virginiana</i>	15	Y	FAC	
2. <i>Mitchella repens</i>	10	Y	FACU	
3. <i>Rubus hispidus</i>	5	Y	FACW	<b>Woody Vine Stratum</b> (Plot size: 30 feet )
4. <i>Dioscorea villosa</i>	5	Y	FAC	
5. <i>Acer rubrum</i>	5	Y	FAC	
6. <i>Quercus rubra</i>	5	Y	FACU	
7. <i>Betula lenta</i>	5	Y	FACU	15 = Total Cover
8. <i>Aralia nudicalis</i>	5	Y	UPL	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u> 55 = Total Cover				7.5 = Total Cover
<b>Woody Vine Stratum</b> (Plot size: 30 feet )				
1. <i>Smilax rotundifolia</i>	15	Y	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	15 = Total Cover
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____	_____	_____	_____	
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				7.5 = Total Cover
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)				
Aralia nudicalis was not listed on the NWPL and is assumed to have an upland indicator status.				
_____				

## SOIL

Sampling Point: W23/25/26-L

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W27-DP1  
Investigator(s): A. Hovanec, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.754688 Long: -79.041427 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Wetland flags W27-1 through W27-9 OE.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
____ Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 12  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Surface water was observed in other parts of the wetland.



**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: W27-DP1

Tree Stratum (Plot size: 30 feet )				Absolute % Cover	Dominant Species?	Indicator Status
1.	Acer rubrum	50	Y	FAC		
2.	Betula lenta	20	Y	FACU		
3.	Magnolia acuminata	5	N	FACU		
4.						
5.						
6.						
7.						
		75 = Total Cover				
50% of total cover:		37.5	20% of total cover:		15	
Sapling/Shrub Stratum (Plot size: 15 feet )				Absolute % Cover	Dominant Species?	Indicator Status
1.	Betula lenta	20	Y	FACU		
2.	Acer rubrum	10	Y	FAC		
3.	Rosa multiflora	10	Y	FACU		
4.	Aronia melanocarpa	5	N	FAC		
5.						
6.						
7.						
8.						
9.						
		45 = Total Cover				
50% of total cover:		22.5	20% of total cover:		9	
Herb Stratum (Plot size: 5 feet )				Absolute % Cover	Dominant Species?	Indicator Status
1.	Rubus hispidus	30	Y	FACW		
2.	Osmunda claytoniana	25	Y	FAC		
3.	Athyrium angustum	15	Y	FAC		
4.	Carex crinita	15	Y	OBL		
5.	Osmundastrum cinnamomeum	10	N	FACW		
6.	Lysimachia quadrifolia	10	N	FACU		
7.	Microstegium vimineum	5	N	FAC		
8.	Leersia virginica	5	N	FACW		
9.	Juncus effusus	2	N	FACW		
10.						
11.						
		117 = Total Cover				
50% of total cover:		58.5	20% of total cover:		23.4	
Woody Vine Stratum (Plot size: 30 feet )				Absolute % Cover	Dominant Species?	Indicator Status
1.	Smilax rotundifolia	15	Y	FAC		
2.						
3.						
4.						
5.						
		15 = Total Cover				
50% of total cover:		7.5	20% of total cover:		3	
Remarks: (Include photo numbers here or on a separate sheet.)						

Dominance Test worksheet:			
Number of Dominant Species That Are OBL, FACW, or FAC:		7	(A)
Total Number of Dominant Species Across All Strata:		10	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:		70%	(A/B)
Prevalence Index worksheet:			
Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0 (B)
Prevalence Index = B/A = 0			
Hydrophytic Vegetation Indicators:			
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation			
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%			
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>			
<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)			
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Definitions of Four Vegetation Strata:			
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.			
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.			
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

## SOIL

Sampling Point: **W27-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/1	100					Lo	Organic matter present
3-11	2.5Y 6/1	80	7.5YR 5/6	20			SaClLo	
11-18	10YR 6/3	100					SaLo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W28-DP1  
Investigator(s): A. Hovanec, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Hillslope, Depression Local relief (concave, convex, none): Concave Slope (%): 3-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.752411 Long: -79.040746 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (HbD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks:  Wetland flags W28-1 through W28-26.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input checked="" type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1-2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>5</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W28-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer rubrum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
2. <u>Nyssa sylvatica</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Quercus bicolor</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <div>                         Total % Cover of:                         <div style="margin-top: 5px;">                             OBL species <u>0</u>                              FACW species <u>0</u>                              FAC species <u>0</u>                              FACU species <u>0</u>                              UPL species <u>0</u>                              Column Totals: <u>0</u> (A)                         </div> </div> <div>                         Multiply by:                         <div style="margin-top: 5px;">                             x 1 = <u>0</u>                              x 2 = <u>0</u>                              x 3 = <u>0</u>                              x 4 = <u>0</u>                              x 5 = <u>0</u>                              (B)                         </div> </div> </div> Prevalence Index = B/A = <u>0</u>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<div style="text-align: right;"> <u>55</u> = Total Cover                          50% of total cover: <u>27.5</u>    20% of total cover: <u>11</u> </div>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Nyssa sylvatica</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<div style="text-align: right;"> <u>25</u> = Total Cover                          50% of total cover: <u>12.5</u>    20% of total cover: <u>5</u> </div>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Athyrium angustum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Carex crinita</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Rubus hispidus</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Solidago gigantea</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
5. <u>Impatiens pallida</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<div style="text-align: right;"> <u>85</u> = Total Cover                          50% of total cover: <u>42.5</u>    20% of total cover: <u>17</u> </div>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<div style="text-align: right;"> <u>5</u> = Total Cover                          50% of total cover: <u>2.5</u>    20% of total cover: <u>1</u> </div>				
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W28-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W27/28-UP1  
Investigator(s): A. Hovanec, C. HOulihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.753800 Long: -79.041627 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W27/28-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Prunus serotina</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. <u>Acer rubrum</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Magnolia acuminata</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Acer rubrum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Quercus rubra</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
4. <u>Liriodendron tulipifera</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. <u>Sassafras albidum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Alliaria petiolata</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Parathelypteris noveboracensis</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Medeola virginiana</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
4. <u>Solidago sp.</u>	<u>10</u>	<u>N</u>	<u>NS</u>															
5. <u>Ageratina altissima</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. <u>Athyrium angustum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Vitis riparia</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)  The Solidago species was unidentifiable and was not included in the Dominance test.				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____														

## SOIL

Sampling Point: W27/28-UP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 12 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W29-DP1  
Investigator(s): C. Sullivan, C. Houlihan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.748630 Long: -79.042135 Datum: NAD83  
Soil Map Unit Name: Nolo very stony loam, 0 to 8 percent slopes (NsB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Wetland flags W29-1 through W29-31.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	____ Sparsely Vegetated Concave Surface (B8)
____ High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
____ Saturation (A3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)	____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W29-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer rubrum</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
2. <u>Quercus rubra</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
60 = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10 = Total Cover				
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. <u>Osmundastrum cinnamomeum</u>	<u>70</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Viola cucullata</u>	<u>20</u>	<u>N</u>	<u>FACW</u>	
3. <u>Athyrium angustum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
4. <u>Poa palustris</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
5. <u>Bidens frondosa</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
6. <u>Eurybia divaricata</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
120 = Total Cover				
50% of total cover: <u>60</u> 20% of total cover: <u>24</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
10 = Total Cover				
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Remarks: (Include photo numbers here or on a separate sheet.) Eurybia divaricata is not listed on the NWPL and is assumed to have an upland indicator status.				

## SOIL

Sampling Point: W29-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 3/1	100					CiLo	
1-3	10YR 5/2	100					CiLo	
3-18	2.5Y 5/1	85	5YR 7/8	15			CI	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>					
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )						
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)						
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> <b>(MLRA 147, 148)</b>						
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)						
<input checked="" type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> <b>(MLRA 136, 147)</b>						
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)						
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)						
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)							
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b> <b>MLRA 147, 148</b> )	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b> <b>MLRA 136</b> )							
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )							
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )							
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )							

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes ☒

No \_\_\_\_\_

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 12 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W29-UP1  
Investigator(s): C. Sullivan, C. Houlihan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.748491 Long: -79.042179 Datum: NAD83  
Soil Map Unit Name: Nolo very stony loam, 0 to 8 percent slopes (NsB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W29-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20%</u> (A/B)														
2. <u>Magnolia acuminata</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Acer saccharum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. <u>Betula lenta</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
5. <u>Nyssa sylvatica</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>85</u> = Total Cover 50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Magnolia acuminata</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Acer pensylvanicum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. <u>Hamamelis virginiana</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
5. <u>Quercus rubra</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Dennstaedtia punctilobula</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Eurybia divaricata</u>	<u>10</u>	<u>N</u>	<u>UPL</u>															
3. <u>Polygonatum biflorum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>55</u> = Total Cover 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) Eurybia divaricata is not listed on the NWPL and is assumed to have an upland indicator status.				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>														

**SOIL**

Sampling Point: **W29-UP1**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	2.5YR 3/2	100					Lo	
1-5	2.5YR 6/4	100					Lo	
5-12	2.5YR 6/5	100					CILO	
12-18	2.5YR 7/6	50	2.5YR 8/8	50			CILO	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (**LRR N**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- ☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- ☐ Umbric Surface (F13) (**MLRA 136, 122**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
- ☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)
- ☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 \_\_\_\_\_ No ☒

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 13 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W30-DP1  
Investigator(s): C. Sullivan, C. Houlihan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Flat Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.748665 Long: -79.044103 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (HbD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Wetland flags W30-1 through W30-49 odd; W30-2 through W30-38 even	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>&lt;1</u>	Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>12</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:  Hydrogen sulfide odor was observed elsewhere in the wetland.		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W30-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)														
2. <u>Betula lenta</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Quercus rubra</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
4. <u>Quercus prinus</u>	<u>5</u>	<u>N</u>	<u>UPL</u>															
5. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>95</u></td> <td>x 3 = <u>285</u></td> </tr> <tr> <td>FACU species <u>65</u></td> <td>x 4 = <u>260</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>225</u> (A)</td> <td><u>660</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.9</u>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>30</u>	x 2 = <u>60</u>	FAC species <u>95</u>	x 3 = <u>285</u>	FACU species <u>65</u>	x 4 = <u>260</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>225</u> (A)	<u>660</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>30</u>	x 1 = <u>30</u>																	
FACW species <u>30</u>	x 2 = <u>60</u>																	
FAC species <u>95</u>	x 3 = <u>285</u>																	
FACU species <u>65</u>	x 4 = <u>260</u>																	
UPL species <u>5</u>	x 5 = <u>25</u>																	
Column Totals: <u>225</u> (A)	<u>660</u> (B)																	
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																		
1. <u>Betula lenta</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																		
1. <u>Persicaria maculosa</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Carex crinita</u>	<u>10</u>	<u>N</u>	<u>OBL</u>															
3. <u>Euthamia graminifolia</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
4. <u>Lycopus americanus</u>	<u>10</u>	<u>N</u>	<u>OBL</u>															
5. <u>Viola cucullata</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
6. <u>Glyceria striata</u>	<u>10</u>	<u>N</u>	<u>OBL</u>															
7. <u>Bidens aristosa</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
8. <u>Rubus hispidus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
9. <u>Thelypteris palustris</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
10. <u>Osmundastrum cinnamomeum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
11. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
_____ = Total Cover 50% of total cover: <u>65</u> 20% of total cover: <u>26</u>																		
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
Remarks: (Include photo numbers here or on a separate sheet.)																		

## SOIL

Sampling Point: W30-DP1

[illegible]





**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W32-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
10 = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. <u>Rosa multiflora</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10 = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Osmundastrum cinnamomeum</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Viola cucullata</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Leersia virginica</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Lycopus americanus</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
5. <u>Euthamia graminifolia</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
6. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
7. <u>Hypericum mutilum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
8. <u>Solidago rugosa</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
175 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>87.5</u> 20% of total cover: <u>35</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____

## SOIL

Sampling Point: W32-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 14 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W34-DP1  
Investigator(s): C. Sullivan, C. Houlihan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0-1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.744233 Long: -79.047193 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

#### Remarks:

Wetland flags W34-1 through W34-21.

Numerous old tire ruts were observed within the wetland. An upland berm was included within the wetland. A seep was observed at the upper limits of the wetland.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0.5  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W34-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Betula lenta</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>70%</u> (A/B)														
2. <u>Nyssa sylvatica</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Quercus rubra</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Betula lenta</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Ilex verticillata</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Rubus hispidus</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Parathelypteris noveboracensis</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Osmundastrum cinnamomeum</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>															
4. <u>Carex crinita</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>															
5. <u>Persicaria sagittata</u>	<u>10</u>	<u>N</u>	<u>OBL</u>															
6. <u>Viola cucullata</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
7. <u>Juncus effusus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
8. <u>Lycopus americanus</u>	<u>10</u>	<u>N</u>	<u>OBL</u>															
9. <u>Dennstaedtia punctilobula</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
10. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
11. _____	_____	_____	_____															
<u>160</u> = Total Cover 50% of total cover: <u>80</u> 20% of total cover: <u>32</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Rubus allegheniensis</u>	<u>2</u>	<u>Y</u>	<u>FACU</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. <u>Smilax rotundifolia</u>	<u>2</u>	<u>Y</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
<u>4</u> = Total Cover 50% of total cover: <u>2</u> 20% of total cover: <u>0.8</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

## SOIL

Sampling Point: W34-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/2	100					Lo	Organic matter
3-10	N 7/1	95	10YR 6/8	5			SaCl	Oxidized root channels
10-18	10Y 7/1	80	10YR 6/8	20			Cl	Oxidized root channels

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> ( <b>MLRA 147, 148</b> )			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> ( <b>MLRA 136, 147</b> )			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N, MLRA 147, 148</b> )	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N, MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes ☒

No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 14 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W35-DP1  
Investigator(s): C. Sullivan, C. Houlihan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%):         
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.743846 Long: -79.047061 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification:       

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

#### Remarks:

Wetland flags W35-1 through W35-12; flag W35-1 connects to S25A-1; flag W35-12 connects to S25A-13

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): <1  
Water Table Present? Yes ☐ No ☒ Depth (inches):         
Saturation Present? Yes ☒ No ☐ Depth (inches): 5  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

#### Remarks:



Sampling Point: W35-DP1

Tree Stratum (Plot size: <u>30 feet</u> )				Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Fraxinus pennsylvanica</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>		
2.	<u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>		
3.	<u>Acer rubra</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>		
4.	<u>Nyssa sylvatica</u>	<u>5</u>	<u>N</u>	<u>FAC</u>		
5.						
6.						
7.						
		<u>45</u>	= Total Cover			
50% of total cover:		<u>22.5</u>	20% of total cover:		<u>9</u>	
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )						
1.	<u>Nyssa sylvatica</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>		
2.	<u>Betula lenta</u>	<u>10</u>	<u>N</u>	<u>FACU</u>		
3.	<u>Acer pensylvanicum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>		
4.	<u>Hamamelis virginiana</u>	<u>5</u>	<u>N</u>	<u>FACU</u>		
5.						
6.						
7.						
8.						
9.						
		<u>70</u>	= Total Cover			
50% of total cover:		<u>35</u>	20% of total cover:		<u>14</u>	
Herb Stratum (Plot size: <u>5 feet</u> )						
1.	<u>Viola cucullata</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>		
2.	<u>Rubus hispidus</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>		
3.	<u>Lycopus americanus</u>	<u>20</u>	<u>N</u>	<u>OBL</u>		
4.	<u>Dryopteris cristata</u>	<u>10</u>	<u>N</u>	<u>FACW</u>		
5.	<u>Leersia virginica</u>	<u>10</u>	<u>N</u>	<u>FACW</u>		
6.	<u>Osmundastrum cinnamomeum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>		
7.	<u>Cypripedium parviflorum</u>	<u>2</u>	<u>N</u>	<u>FACW</u>		
8.						
9.						
10.						
11.						
		<u>107</u>	= Total Cover			
50% of total cover:		<u>53.5</u>	20% of total cover:		<u>21.4</u>	
Woody Vine Stratum (Plot size: <u>30 feet</u> )						
1.	<u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>		
2.						
3.						
4.						
5.						
		<u>5</u>	= Total Cover			
50% of total cover:		<u>2.5</u>	20% of total cover:		<u>1</u>	

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

Dominance Test worksheet:			
Number of Dominant Species That Are OBL, FACW, or FAC:	<u>6</u>		(A)
Total Number of Dominant Species Across All Strata:	<u>7</u>		(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>85.71%</u>		(A/B)
Prevalence Index worksheet:			
Total % Cover of:	Multiply by:		
OBL species <u>0</u>	x 1 =	<u>0</u>	
FACW species <u>0</u>	x 2 =	<u>0</u>	
FAC species <u>0</u>	x 3 =	<u>0</u>	
FACU species <u>0</u>	x 4 =	<u>0</u>	
UPL species <u>0</u>	x 5 =	<u>0</u>	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)
Prevalence Index = B/A = <u>0</u>			
Hydrophytic Vegetation Indicators:			
<u>  </u> 1 - Rapid Test for Hydrophytic Vegetation			
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%			
<u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>			
<u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)			
<u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain			

## SOIL

Sampling Point: W35-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 14 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W36-DP1  
Investigator(s): C. Sullivan, C. Houlihan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.744892 Long: -79.047111 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

#### Remarks:

Wetland flags W36-1 through W36-15

Wetland is located in old road bed; many tire ruts present.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)
____ Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W36-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>145</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.1</u>	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>70</u> (A)	<u>145</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>20</u>	x 1 = <u>20</u>																	
FACW species <u>35</u>	x 2 = <u>70</u>																	
FAC species <u>5</u>	x 3 = <u>15</u>																	
FACU species <u>10</u>	x 4 = <u>40</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>70</u> (A)	<u>145</u> (B)																	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Betula lenta</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Viola cucullata</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Lycopus americanus</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>															
3. <u>Osmundastrum cinnamomeum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
4. <u>Eutrochium purpureum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
5. <u>Juncus effusus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
6. <u>Typha X glauca</u>	<u>5</u>	<u>N</u>	<u>OBL</u>															
7. <u>Rubus hispidus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

## SOIL

Sampling Point: **W36-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-0.5	5YR 3/4	100					Lo	with organic matter
0.5-2	10YR 4/2	100					SiLo	with organic matter
2-5	5YR 4/6	60	10Y 2.5/1	5			Cl	
			N 7/	15				
			5PB 5/1	20				
5-18	N 6/	60	10YR 8/8	40			Cl	oxidized root channels

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☒ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 15 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W37-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.732496 Long: -79.055802 Datum: NAD83  
Soil Map Unit Name: Chavies silt loam, 0 to 3 percent slopes (ChA) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

### Remarks:

Wetland flags W37-1 through W37-12.

Wetland is a former overflow channel that has become impounded. Wetland has a rocky substrate with decaying organic matter and water. Three small upland areas, rock crossings, were included in the wetland.

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Shallow Aquitard (D3)
____ Water-Stained Leaves (B9)	____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)	____ FAC-Neutral Test (D5)
____ True Aquatic Plants (B14)	
____ Hydrogen Sulfide Odor (C1)	
____ Oxidized Rhizospheres on Living Roots (C3)	
____ Presence of Reduced Iron (C4)	
____ Recent Iron Reduction in Tilled Soils (C6)	
____ Thin Muck Surface (C7)	
____ Other (Explain in Remarks)	

### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1-2  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 2  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

### Remarks:

Very strong hydrogen sulfide odor was noted within the wetland.



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W37-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u></td> <td>(A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <u>  </u>																																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																																				
1. <u>Urtica dioica</u>	<u>3</u>	<u>Y</u>	<u>FACU</u>																																	
2. <u>Arisaema triphyllum</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <u>  </u>																																
3. <u>Persicaria maculosa</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <u>  </u>																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <u>  </u>																																
11. _____	_____	_____	_____																																	
_____ = Total Cover																																				
50% of total cover: <u>3.5</u> 20% of total cover: <u>1.4</u>																																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <u>  </u>																																
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <u>  </u>																																
5. _____	_____	_____	_____																																	
_____ = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				

Remarks: (Include photo numbers here or on a separate sheet.)  
  
 Sparsely vegetated, concave surface.

## SOIL

Sampling Point: W37-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 15 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W37-UP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.732500 Long: -79.056150 Datum: NAD83  
Soil Map Unit Name: Chavies silt loam, 0 to 3 percent slopes (ChA) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W37-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																																
1. <u>Acer saccharum</u>	60	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)																																																
2. <u>Fagus grandifolia</u>	20	Y	FACU	Total Number of Dominant Species Across All Strata: <u>6</u> (B)																																																
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16.67%</u> (A/B)																																																
4. _____																																																				
5. _____																																																				
6. _____																																																				
7. _____																																																				
<u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>0</u>																																																
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																																
<u>130</u> = Total Cover 50% of total cover: <u>65</u> 20% of total cover: <u>26</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																																
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																																																
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Urtica dioica</u></td><td style="text-align: center;">50</td><td style="text-align: center;">Y</td><td style="text-align: center;">FACU</td></tr> <tr><td>2. <u>Onoclea sensibilis</u></td><td style="text-align: center;">20</td><td style="text-align: center;">Y</td><td style="text-align: center;">FACW</td></tr> <tr><td>3. <u>Solidago canadensis</u></td><td style="text-align: center;">15</td><td style="text-align: center;">N</td><td style="text-align: center;">FACU</td></tr> <tr><td>4. <u>Monarda didyma</u></td><td style="text-align: center;">10</td><td style="text-align: center;">N</td><td style="text-align: center;">FACW</td></tr> <tr><td>5. <u>Viola cucullata</u></td><td style="text-align: center;">10</td><td style="text-align: center;">N</td><td style="text-align: center;">FACW</td></tr> <tr><td>6. <u>Impatiens capensis</u></td><td style="text-align: center;">5</td><td style="text-align: center;">N</td><td style="text-align: center;">FACW</td></tr> <tr><td>7. <u>Thalictrum dioicum</u></td><td style="text-align: center;">5</td><td style="text-align: center;">N</td><td style="text-align: center;">FAC</td></tr> <tr><td>8. <u>Arisaema triphyllum</u></td><td style="text-align: center;">5</td><td style="text-align: center;">N</td><td style="text-align: center;">FACW</td></tr> <tr><td>9. <u>Athyrium angustum</u></td><td style="text-align: center;">5</td><td style="text-align: center;">N</td><td style="text-align: center;">FAC</td></tr> <tr><td>10. <u>Microstegium vimineum</u></td><td style="text-align: center;">5</td><td style="text-align: center;">N</td><td style="text-align: center;">FAC</td></tr> <tr><td>11. _____</td><td></td><td></td><td></td></tr> </tbody> </table>						Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Urtica dioica</u>	50	Y	FACU	2. <u>Onoclea sensibilis</u>	20	Y	FACW	3. <u>Solidago canadensis</u>	15	N	FACU	4. <u>Monarda didyma</u>	10	N	FACW	5. <u>Viola cucullata</u>	10	N	FACW	6. <u>Impatiens capensis</u>	5	N	FACW	7. <u>Thalictrum dioicum</u>	5	N	FAC	8. <u>Arisaema triphyllum</u>	5	N	FACW	9. <u>Athyrium angustum</u>	5	N	FAC	10. <u>Microstegium vimineum</u>	5	N	FAC	11. _____			
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4. <u>Monarda didyma</u>	10	N	FACW																																																	
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5. _____																																																				
Remarks: (Include photo numbers here or on a separate sheet.)																																																				

## SOIL

Sampling Point: W37-UP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 15 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W38-DP1  
Investigator(s): C. Houlihan, C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.740766 Long: -79.050928 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (HbD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Wetland flags W38-1 through W38-12.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b>			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>		<b>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____</b>	
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>&lt;1</u>			
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>18</u>			
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</u> (includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:  A seep was observed in the wetland.			

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W38-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Acer rubrum</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Viola cucullata</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Osmunda claytoniana</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Osmundastrum cinnamomeum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
4. <u>Onoclea sensibilis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
5. <u>Lycopus americanus</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
6. <u>Dryopteris carthusiana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
7. <u>Persicaria punctata</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				



## SOIL

Sampling Point: **W38-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 2/1	100					Lo	with organic matter
1-3	N 4/1	80	10YR 2/1	10			Cl	
			10YR 3/4	10				Oxidized root channels
3-10	2.5YR 7/2	60	10YR 2/1	20			Cl	
			10YR 5/8	20				
10-18	2.5YR 7/2	70	10YR 4/6	10			Cl	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 15 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W38-UP1  
Investigator(s): C. Sullivan, C. Houlihan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Flat Slope (%): 0-7  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.740680 Long: -79.050960 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (HbD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W38-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. <u>Magnolia acuminata</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)																
2. <u>Betula lenta</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>8</u> (B)																
3. <u>Quercus rubra</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>12.5%</u> (A/B)																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>0</u>																				
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____	_____	_____	_____																	
<u>70</u> = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																				
1. <u>Betula lenta</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>																	
2. <u>Hamamelis virginiana</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Acer pensylvanicum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																				
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																				
1. <u>Polygonatum biflorum</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>																	
2. <u>Monotropa uniflora</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Gaultheria procumbens</u>	<u>2</u>	<u>N</u>	<u>FACU</u>																	
4. <u>Mitchella repens</u>	<u>2</u>	<u>N</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>14</u> = Total Cover 50% of total cover: <u>7</u> 20% of total cover: <u>2.8</u>																				
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																				
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

## SOIL

Sampling Point: W38-UP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 21 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W40-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.731744 Long: -79.055688 Datum: NAD83  
Soil Map Unit Name: Purdy silt loam (Pu) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

#### Remarks:

Wetland flags W40-1 through W40-10.

Data point taken within an overflow channel within a floodplain. Ponded water at lower limit of wetland with a constricted outlet.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
____ Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 14  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 6  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W40-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Arisaema triphyllum</u>	<u>3</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Impatiens capensis</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				
Remarks: (Include photo numbers here or on a separate sheet.)  Sparsely vegetated at lower end due to surface water ponding.				

## SOIL

Sampling Point: W40-DP1

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 01 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W41-DP1  
Investigator(s): C. Sullivan, A. Hovanec, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.726929 Long: -79.067001 Datum: NAD83  
Soil Map Unit Name: Udorthents, mine spoil, 25 to 70 percent slopes (UDF) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Wetland flags W41-1 through W41-17.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 10  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W41-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. <u>Viburnum recognitum</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Ilex verticillata</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Acer rubrum</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
4. <u>Prunus serotina</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. <u>Betula alleghaniensis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
6. <u>Nyssa sylvatica</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
7. <u>Populus tremuloides</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<u>110</u> = Total Cover				
50% of total cover: <u>55</u> 20% of total cover: <u>22</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1. <u>Rubus hispidus</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Onoclea sensibilis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Solidago rugosa</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Eutrochium purpureum</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
5. <u>Carex crinita</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
6. <u>Osmundastrum cinnamomeum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
7. <u>Oxypolis rigidior</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>120</u> = Total Cover				
50% of total cover: <u>60</u> 20% of total cover: <u>24</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W41-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 01 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W41-UP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA

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

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.727373 Long: -79.066912 Datum: NAD83

Soil Map Unit Name: Udorthents, mine spoil, 25 to 70 percent slopes (UDF) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W41-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Quercus rubra</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. <u>Magnolia acuminata</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. <u>Betula lenta</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
4. <u>Acer rubrum</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>Multiply by:</u> OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>0</u>
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</u> <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>65</u> = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>				<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b> 1. <u>Osmundastrum cinnamomeum</u> <u>20</u> <u>Y</u> <u>FACW</u> 2. <u>Athyrium angustum</u> <u>15</u> <u>Y</u> <u>FAC</u> 3. <u>Symplocarpus foetidus</u> <u>10</u> _____    _____ 4. <u>Rubus hispidus</u> <u>10</u> <u>N</u> <u>FACW</u> 5. <u>Carex crinita</u> <u>5</u> <u>N</u> <u>OBL</u> 6. <u>Dichanthelium clandestinum</u> <u>5</u> <u>N</u> <u>FAC</u> 7. _____ 8. _____ 9. _____ 10. _____ 11. _____				
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b> 1. <u>Smilax rotundifolia</u> <u>10</u> <u>Y</u> <u>FAC</u> 2. _____ 3. _____ 4. _____ 5. _____				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: **W41-UP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	7.5YR2.5/2	100					SaLo	
1-6	10YR 4/4	85	10YR 4/1	10			SaLo	
			10YR 5/6	5				
6-16	10YR 4/4	70	10YR 4/1	20			SaLo	
			10YR 5/6	10				
16-18	10YR 6/6	90	10YR 5/8	10			LoCl	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 \_\_\_\_\_ No ☒

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 01 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W42-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Flat Slope (%): 1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.727815 Long: -79.066731 Datum: NAD83  
Soil Map Unit Name: Udorthents, mine spoil, 25 to 70 percent slopes (UDF) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Wetland flags W42-1 through W42-3; open-ended.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 24  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 10  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W42-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer rubrum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
2. <u>Betula alleghaniensis</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
40 = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>20</u>		20% of total cover: <u>8</u>		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Hamamelis virginiana</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10 = Total Cover				
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. <u>Rubus hispidus</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Dryopteris cristata</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Carex crinita</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Lysimachia quadrifolia</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
5. <u>Symphotrichum lateriflorum</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
6. <u>Juncus effusus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
7. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
8. <u>Symplocarpus foetidus</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
9. <u>Hypericum mutilum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
155 = Total Cover				
50% of total cover: <u>77.5</u>		20% of total cover: <u>31</u>		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: **W42-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	7.5YR 3/2	100					Lo	with organic matter
2-10	2.5YR 4/1	80	2.5YR 4/6	20			SiClLo	Oxidized root channels
10-13	10YR 4/2	70	2.5YR 3/6	15			SiCl	
			10YR 7/2	10				
			7.5YR 6/6	5				
13-18	10YR 4/2	70	10YR 2/1	20			SaLo	
			7.5YR 5/8	10				

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 01 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W43-DP2  
Investigator(s): A. Hovanec, S. Comerford Section, Township, Range: NA

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

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.725508 Long: -79.066426 Datum: NAD83

Soil Map Unit Name: Udorthents, mine spoil, 25 to 70 percent slopes (UDF NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Wetland flags W43-1 through W43-8; ties to stream flags S38-122 and S38-132.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
____ High Water Table (A2)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
____ Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	<input checked="" type="checkbox"/> Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W43-DP2

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A)  Total Number of Dominant Species Across All Strata: <u>11</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>72.73%</u> (A/B)														
2. <u>Nyssa sylvatica</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Quercus rubra</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Rhododendron maximum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Vaccinium corymbosum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>															
4. <u>Betula alleghaniensis</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Dryopteris marginalis</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Osmunda claytoniana</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Cyperus esculentus</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
4. <u>Vaccinium corymbosum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
5. <u>Hamamelis virginiana</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. <u>Medeola virginiana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>75</u> = Total Cover 50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____																		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  Club moss present in wetland.  Trees dying and falling in adjacent uplands.																		

## SOIL

Sampling Point: W43-DP2

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 02 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W44-DP1  
Investigator(s): C. Sullivan, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.724494 Long: -79.074508 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Wetland flags W44-1 through W44-25.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	____ Sparsely Vegetated Concave Surface (B8)
____ True Aquatic Plants (B14)	____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	____ Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	____ Dry-Season Water Table (C2)
____ Water Marks (B1)	____ Crayfish Burrows (C8)
____ Sediment Deposits (B2)	____ Saturation Visible on Aerial Imagery (C9)
____ Drift Deposits (B3)	____ Stunted or Stressed Plants (D1)
____ Algal Mat or Crust (B4)	____ Geomorphic Position (D2)
<input checked="" type="checkbox"/> Iron Deposits (B5)	____ Shallow Aquitard (D3)
____ Inundation Visible on Aerial Imagery (B7)	____ Microtopographic Relief (D4)
____ Water-Stained Leaves (B9)	____ FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Aquatic Fauna (B13)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 2-3  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 3  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W44-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>0</u>																				
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover	_____	_____	_____																	
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																			
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover	<u>5</u>	_____	_____																	
50% of total cover: <u>2.5</u>	20% of total cover: <u>1</u>																			
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																				
1. <u>Impatiens capensis</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Lycopus americanus</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>																	
3. <u>Carex crinita</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>																	
4. <u>Hypericum virginicum</u>	<u>15</u>	<u>N</u>	<u>OBL</u>																	
5. <u>Thalictrum dioicum</u>	<u>15</u>	<u>N</u>	<u>FAC</u>																	
6. <u>Scutellaria lateriflora</u>	<u>15</u>	<u>N</u>	<u>FACW</u>																	
7. <u>Viola lanceolata</u>	<u>10</u>	<u>N</u>	<u>OBL</u>																	
8. <u>Mimulus ringens</u>	<u>5</u>	<u>N</u>	<u>OBL</u>																	
9. <u>Onoclea sensibilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
10. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																	
11. _____	_____	_____	_____																	
_____ = Total Cover	<u>140</u>	_____	_____																	
50% of total cover: <u>70</u>	20% of total cover: <u>28</u>																			
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover	_____	_____	_____																	
50% of total cover: <u>0</u>	20% of total cover: <u>0</u>																			
Remarks: (Include photo numbers here or on a separate sheet.)  Sphagnum moss present in wetland. Dodder approximately 5% cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																



## SOIL

Sampling Point: W44-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/3	100					Lo	with organic matter
3-10	10YR 4/2	75	5YR 4/4	25			Lo	
10-13	2.5YR 4/1	90	5YR 4/4	10			SiLo	
13-14	2.5YR 4/4	100					SaLo	Gravelly

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> ( <b>MLRA 147, 148</b> )			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> ( <b>MLRA 136, 147</b> )			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>				
<input type="checkbox"/> <b>MLRA 147, 148</b> )	<input type="checkbox"/> <b>MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

**Restrictive Layer (if observed):**  
Type: Streambed  
Depth (inches): 14

Hydric Soil Present?    Yes ☒    No ☐

Remarks:  
  
Refusal at 14 inches due to point's location within old stream channel.

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 02 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W44-UP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat Slope (%): 0-1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.732500 Long: -79.056150 Datum: NAD83  
Soil Map Unit Name: Chavies silt loam, 0 to 3 percent slopes (ChA) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
Data point was taken on a floodplain bench between Wetland W44 and Stream S39.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

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

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W44-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16.67%</u> (A/B)														
2. <u>Acer saccharum</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>12</u> = Total Cover 50% of total cover: <u>6</u> 20% of total cover: <u>2.4</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Crataegus sp.</u>	<u>5</u>	<u>Y</u>	<u>NS</u>															
3. <u>Quercus rubra</u>	<u>2</u>	<u>N</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>12</u> = Total Cover 50% of total cover: <u>6</u> 20% of total cover: <u>2.4</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Rubus hispidus</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Dichanthelium clandestinum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Dennstaedtia punctilobula</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
4. <u>Thalictrum dioicum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
5. <u>Solidago altissima</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. <u>Carex crinita</u>	<u>5</u>	<u>N</u>	<u>OBL</u>															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>135</u> = Total Cover 50% of total cover: <u>67.5</u> 20% of total cover: <u>27</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
Remarks: (Include photo numbers here or on a separate sheet.) The Crataegus species was unidentifiable, and was therefore not included in calculating the Dominance Test.																		

## SOIL

Sampling Point: W44-UP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 03 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W45-DP1  
Investigator(s): N. Davis, A. Hovanec, C. Sullivan, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.724112 Long: -79.075037 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:  
Wetland consists of of flags W45-1 through W45-13

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5  
Water Table Present? Yes ☒ No ☐ Depth (inches): 3  
Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W45-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>0</u>																				
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																				
1. <u>Symphyotrichum novae-angliae</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Viola cucullata</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																
3. <u>Dryopteris cristata</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																	
4. <u>Symphyotrichum lateriflorum</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																	
5. <u>Persicaria sagittata</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>																	
6. <u>Symphyotrichum puniceum</u>	<u>10</u>	<u>N</u>	<u>OBL</u>																	
7. <u>Carex stricta</u>	<u>10</u>	<u>N</u>	<u>OBL</u>																	
8. <u>Rubus hispidus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>																	
9. <u>Impatiens capensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
10. <u>Carex lurida</u>	<u>5</u>	<u>N</u>	<u>OBL</u>																	
11. <u>Scutellaria lateriflora</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
_____ = Total Cover																				
50% of total cover: <u>77.5</u> 20% of total cover: <u>31</u>																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.)  Mosses were present on rocks and the ground surface.																				

## SOIL

Sampling Point: W45-DP1

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 02 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W46-DP1  
Investigator(s): N. Davis, A. Hovanec, C. Sullivan, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.724727 Long: -79.074969 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:  
Wetland consists of of flags W46-1 through W46-5. Connects to S39A at S39A-34/36.  
  
Wetland is located in an old roadbed with compacted soils.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5  
Water Table Present? Yes ☐ No ☒ Depth (inches):             
Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Sampling Point: W46-DP1

<b>Tree Stratum</b> (Plot size: 30 feet )				Absolute % Cover	Dominant Species?	Indicator Status
1. _____				_____	_____	_____
2. _____				_____	_____	_____
3. _____				_____	_____	_____
4. _____				_____	_____	_____
5. _____				_____	_____	_____
6. _____				_____	_____	_____
7. _____				_____	_____	_____
				_____ = Total Cover		
50% of total cover: 0				20% of total cover: 0		
<b>Sapling/Shrub Stratum</b> (Plot size: 15 feet )						
1. _____				_____	_____	_____
2. _____				_____	_____	_____
3. _____				_____	_____	_____
4. _____				_____	_____	_____
5. _____				_____	_____	_____
6. _____				_____	_____	_____
7. _____				_____	_____	_____
8. _____				_____	_____	_____
9. _____				_____	_____	_____
				_____ = Total Cover		
50% of total cover: 0				20% of total cover: 0		
<b>Herb Stratum</b> (Plot size: 5 feet )						
1. <i>Poa palustris</i>				95	Y	FACW
2. <i>Rubus hispidus</i>				20	N	FACW
3. <i>Carex crinita</i>				10	N	OBL
4. _____				_____	_____	_____
5. _____				_____	_____	_____
6. _____				_____	_____	_____
7. _____				_____	_____	_____
8. _____				_____	_____	_____
9. _____				_____	_____	_____
10. _____				_____	_____	_____
11. _____				_____	_____	_____
				125 = Total Cover		
50% of total cover: 62.5				20% of total cover: 25		
<b>Woody Vine Stratum</b> (Plot size: 30 feet )						
1. _____				_____	_____	_____
2. _____				_____	_____	_____
3. _____				_____	_____	_____
4. _____				_____	_____	_____
5. _____				_____	_____	_____
				_____ = Total Cover		
50% of total cover: 0				20% of total cover: 0		
Remarks: (Include photo numbers here or on a separate sheet.)						

<b>Dominance Test worksheet:</b>	
Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
Total Number of Dominant Species Across All Strata:	1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100% (A/B)
<b>Prevalence Index worksheet:</b>	
Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 0 (A)	0 (B)
Prevalence Index = B/A = 0	
<b>Hydrophytic Vegetation Indicators:</b>	
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<b>Definitions of Four Vegetation Strata:</b>	
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.	
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

## SOIL

Sampling Point: **W45-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-6	2.5Y 4/1	90	10YR 4/6	10	C	M	SiLo
6-10	10YR 5/2	50	2.5Y 6/1	40	D	M	SiCilo
			10YR 4/6	10	C	PL	oxidized root channel
10-18	2.5Y 5/6	90	10YR 5/8	10	C	M	CiLo

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 03 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W47-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.744350 Long: -79.055965 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 0 to 8 percent slopes, extremely bouldery (HzB) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:  Wetland consists of of flags W47-1 through W47-18.  Wetland appears to exist in an old man-made cut drainage swale.			

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>          </u>	<b>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b>	
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>10</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>surface</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W47-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b> 1. <i>Fraxinus pennsylvanica</i> <u>5</u> <u>Y</u> <u>FACW</u>				
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
<b>Herb Stratum (Plot size: 5 feet )</b> 1. <i>Impatiens capensis</i> <u>15</u> <u>Y</u> <u>FACW</u>				
2. <i>Carex crinita</i> <u>5</u> <u>Y</u> <u>OBL</u>				
3. <i>Poa palustris</i> <u>5</u> <u>Y</u> <u>FACW</u>				
4. <i>Dryopteris intermedia</i> <u>5</u> <u>Y</u> <u>FACU</u>				
5. <i>Dichanthelium clandestinum</i> <u>2</u> <u>N</u> <u>FAC</u>				
6. <i>Persicaria virginiana</i> <u>1</u> <u>N</u> <u>FAC</u>				
7. <i>Geum canadense</i> <u>1</u> <u>N</u> <u>FACU</u>				
8. <i>Polygonatum biflorum</i> <u>1</u> <u>N</u> <u>FACU</u>				
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>				
<b>Woody Vine Stratum (Plot size: 30 feet )</b> 1. _____				
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: **W47-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-11	10YR 4/1	85	7.5YR 3/4	10			SiClLo	
			10YR 5/6	5				
11-14	10YR 3/1	100					Cl	Gravelly
14-18	7.5YR 7/1	60	7.5YR 4/6	40			Cl	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 03 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W48-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.744782 Long: -79.055741 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 0 to 8 percent slopes, extremely bouldery (HzB) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☒, Soil ☒, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:  Wetland consists of of flags W48-1 through W48-7.  Soils and vegetation appeared to be significantly disturbed. The soils contained significant amounts of gravel throughout the soil profile. The vegetation had been recently cut or mowed. Recent tire ruts were also observed within the wetland.			

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b>			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u>		<b>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>			
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W48-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: 15 feet )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: 5 feet )				
1. <i>Eutrochium purpureum</i>	10	Y	FAC	
2. <i>Onoclea sensibilis</i>	5	Y	FACW	
3. <i>Viola cucullata</i>	5	Y	FACW	
4. <i>Thelypteris palustris</i>	2	N	FACW	
5. <i>Polygonatum biflorum</i>	1	N	FACU	
6. <i>Lycopus americanus</i>	1	N	OBL	
7. <i>Vaccinium corymbosum</i>	1	N	FACW	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				
Woody Vine Stratum (Plot size: 30 feet )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W48-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 03 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W49-DP1  
Investigator(s): N. Davis, A. Hovanec, C. Sullivan, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.744350 Long: -79.055965 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 0 to 8 percent slopes, extremely bouldery (HzB) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:  Wetland 42 connects to stream 42 at flags 10 and 11.  Wetland consists of of flags W49-1 through W49-14			

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input checked="" type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> FAC-Neutral Test (D5)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.5</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W49-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Betula alleghaniensis</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
2. <u>Hamamelis virginiana</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
25 = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. <u>Rhododendron maximum</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Tsuga canadensis</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
20 = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Thelypteris palustris</u>	<u>3</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Medeola virginiana</u>	<u>2</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Eutrochium purpureum</u>	<u>2</u>	<u>Y</u>	<u>FAC</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
7 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>3.5</u> 20% of total cover: <u>1.4</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W49-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 04 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W50-DP1  
Investigator(s): N. Davis, C. Sullivan, A. Hovanec, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 0-3%  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.745841 Long: -79.056939 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Two wetland pockets with a slight upland hump in between. Disturbance is evident, likely from old logging activity in this area.  W50-1 through W50-9	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input checked="" type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>11</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W50-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Betula alleghaniensis</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71.43%</u> (A/B)
2. <u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
35 = Total Cover				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>17.5</u>		20% of total cover: <u>7</u>		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. <u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Betula alleghaniensis</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Tsuga canadensis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. <u>Acer rubrum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
35 = Total Cover				
50% of total cover: <u>17.5</u>		20% of total cover: <u>7</u>		
Herb Stratum (Plot size: <u>5 feet</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Thelypteris palustris</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Lycopus americanus</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Cyperus esculentus</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Impatiens capensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
5. <u>Onoclea sensibilis</u>	<u>3</u>	<u>N</u>	<u>FACW</u>	
6. <u>Oxalis stricta</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
46 = Total Cover				
50% of total cover: <u>23</u>		20% of total cover: <u>9.2</u>		
Woody Vine Stratum (Plot size: <u>30 feet</u> )				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____



## SOIL

Sampling Point: W50-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/3	100					Lo	organic matter
2-10	10YR 4/2	80	7.5YR 4/6	20			SiCl	5% gravel
10-12	10YR 4/1	75	10YR 5/2	20			Cl	5% gravel
			10YR 5/8	5				

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> ( <b>MLRA 147, 148</b> )			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> ( <b>MLRA 136, 147</b> )			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N, MLRA 147, 148</b> )	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N, MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 12

Hydric Soil Present?

Yes ☒

No ☐

Remarks:

Evidence of a perched water table, due to bedrock being present at twelve inches.

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Sommerset Co. Sampling Date: 04 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W50-UP1  
Investigator(s): C. Sullivan, N. Davis, A. Hovanec, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Convex Slope (%): \_\_\_\_\_  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.745703 Long: -79.057107 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W50-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. <u>Tsuga canadensis</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																																
2. <u>Acer saccharum</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>7</u> (B)																																
3. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>28.57%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u></td> <td>(A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																																				
1. <u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>																																	
2. <u>Acer saccharum</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																																				
1. <u>Ranunculus abortivus</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>																																	
2. <u>Hydrophyllum virginianum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>																																	
3. <u>Betula lenta</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																																	
4. <u>Dryopteris marginalis</u>	<u>3</u>	<u>N</u>	<u>FACU</u>																																	
5. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____																																
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>33</u> = Total Cover 50% of total cover: <u>16.5</u> 20% of total cover: <u>6.6</u>																																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
<u>  </u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
Remarks: (Include photo numbers here or on a separate sheet.)																																				

**SOIL**

Sampling Point: **W50-UP1**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/2	100					SiLo	
3-13	10YR 4/1	94	10YR 5/3	3			SiCilo	
			10YR 2/1	3				
13-18	10YR 5/3	94	10YR 6/6	3			SaCilo	
			10YR 2/1	3				

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (**LRR N**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- ☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- ☐ Umbric Surface (F13) (**MLRA 136, 122**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
- ☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)
- ☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 \_\_\_\_\_ No \_\_\_\_\_

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Sommerset Co. Sampling Date: 04 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W51-DP1  
Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.745573 Long: -79.057187 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

#### Remarks:

Wetland consists of flags W51-1 through W51-5

Wetland located at toe of slope. This area used to be affected by historic timber logging.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 11  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 10  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W51-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																								
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)																								
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>6</u> (B)																								
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)																								
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:	OBL species	<u>0</u>	x 1 = <u>0</u>	FACW species	<u>0</u>	x 2 = <u>0</u>	FAC species	<u>0</u>	x 3 = <u>0</u>	FACU species	<u>0</u>	x 4 = <u>0</u>	UPL species	<u>0</u>	x 5 = <u>0</u>	Column Totals:	<u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>		
Total % Cover of:		Multiply by:																										
OBL species	<u>0</u>	x 1 = <u>0</u>																										
FACW species	<u>0</u>	x 2 = <u>0</u>																										
FAC species	<u>0</u>	x 3 = <u>0</u>																										
FACU species	<u>0</u>	x 4 = <u>0</u>																										
UPL species	<u>0</u>	x 5 = <u>0</u>																										
Column Totals:	<u>0</u> (A)	<u>0</u> (B)																										
Prevalence Index = B/A = <u>0</u>																												
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
_____	_____	_____	_____																									
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>0</u>      20% of total cover: <u>0</u></div>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																								
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																												
1. <u>Rosa multiflora</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>																									
2. <u>Sambucus nigra</u>	<u>2</u>	<u>N</u>	<u>FAC</u>																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>6</u>      20% of total cover: <u>2.4</u></div>																												
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																												
1. <u>Persicaria virginiana</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>																									
2. <u>Doellingeria umbellata</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																									
3. <u>Viola cucullata</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																									
4. <u>Cyperus esculentus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																									
5. <u>Dennstaedtia punctilobula</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																									
6. <u>Urtica dioica</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																									
7. <u>Hydrophyllum virginianum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																									
8. <u>Osmorhiza claytonii</u>	<u>2</u>	<u>N</u>	<u>FACU</u>																									
9. _____	_____	_____	_____																									
10. _____	_____	_____	_____																									
11. _____	_____	_____	_____																									
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>63.5</u>      20% of total cover: <u>25.4</u></div>																												
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																												
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>0</u>      20% of total cover: <u>0</u></div>																												
Remarks: (Include photo numbers here or on a separate sheet.)																												

## SOIL

Sampling Point: W51-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 04 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W53-DP1  
Investigator(s): C. Houlihan, C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.746170 Long: -79.057230 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 0 to 8 percent slopes, very stony (CpB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

#### Remarks:

Wetland flags W53-1 through W53-6.

Tire ruts were observed throughout the wetland. This area used to be affected by historic timber logging.

### 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)	___ True Aquatic Plants (B14)	___ Sparsely Vegetated Concave Surface (B8)
___ High Water Table (A2)	___ Hydrogen Sulfide Odor (C1)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Presence of Reduced Iron (C4)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Thin Muck Surface (C7)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Other (Explain in Remarks)	___ Stunted or Stressed Plants (D1)
___ Iron Deposits (B5)		___ Geomorphic Position (D2)
___ Inundation Visible on Aerial Imagery (B7)		___ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		___ Microtopographic Relief (D4)
___ Aquatic Fauna (B13)		___ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

#### Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W53-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u></td> <td>(A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																																				
1. <u>Rosa multiflora</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>																																	
2. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>15</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>																																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																																				
1. <u>Doellingeria umbellata</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>																																	
2. <u>Solidago rugosa</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
3. <u>Monarda didyma</u>	<u>15</u>	<u>N</u>	<u>FAC</u>																																	
4. <u>Cyperus esculentus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>																																	
5. <u>Tiarella cordifolia</u>	<u>10</u>	<u>N</u>	<u>FAC</u>																																	
6. <u>Viola cucullata</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
11. _____	_____	_____	_____																																	
<u>95</u> = Total Cover																																				
50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>																																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
5. _____	_____	_____	_____																																	
_____ = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
Remarks: (Include photo numbers here or on a separate sheet.)																																				

## SOIL

Sampling Point: W53-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 22 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W55-DP1  
Investigator(s): A.Hovanec, C.Sullivan, N.Davis, S.Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.742370 Long: -79.070845 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 3 to 8 percent slopes, extremely stony (HbB) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
Wetland consists of flags W55-1 through W55-7.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)
____ Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

<b>Field Observations:</b>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0.5</u>	
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>6</u> (includes capillary fringe)	

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W55-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
6. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <div>                     Total % Cover of:                     <div style="display: flex; justify-content: space-between;"> <div>OBL species <u>0</u></div> <div>x 1 = <u>0</u></div> </div> <div>FACW species <u>0</u></div> <div>FAC species <u>0</u></div> <div>FACU species <u>0</u></div> <div>UPL species <u>0</u></div> <div>Column Totals: <u>0</u> (A)</div> </div> <div>                     Multiply by:                     <div style="display: flex; justify-content: space-between;"> <div>x 2 = <u>0</u></div> <div>x 3 = <u>0</u></div> <div>x 4 = <u>0</u></div> <div>x 5 = <u>0</u></div> <div><u>0</u> (B)</div> </div> </div> </div>

 Prevalence Index = B/A = 0
**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
 
**Definitions of Four Vegetation Strata:**  
  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
  
**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vine** – All woody vines greater than 3.28 ft in height.
 
**Hydrophytic Vegetation Present?**      Yes ☒      No \_\_\_\_\_

## SOIL

Sampling Point: **W55-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 2/1	100					Lo	
4-6	10YR 2/1	100					Sa	charcoal and fine gravels
6-9	10YR 6/2	90	10YR 4/8	10			SiCl	
9-10	5YR 4/6	100					SaClLo	
10-18	10YR 4/6	90	5YR 4/6	10			SaClLo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W56-DP1  
Investigator(s): \_\_\_\_\_ Section, Township, Range: NA

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

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.740580 Long: -79.073009 Datum: NAD83

Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: None

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
Flags W56-1 through W56-21

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): <1

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 8

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W56-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>2</u></td> <td>x 2 = <u>4</u></td> </tr> <tr> <td>FAC species <u>2</u></td> <td>x 3 = <u>6</u></td> </tr> <tr> <td>FACU species <u>2</u></td> <td>x 4 = <u>8</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>11</u> (A)</td> <td><u>23</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.1</u>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>2</u>	x 2 = <u>4</u>	FAC species <u>2</u>	x 3 = <u>6</u>	FACU species <u>2</u>	x 4 = <u>8</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>11</u> (A)	<u>23</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>5</u>	x 1 = <u>5</u>																	
FACW species <u>2</u>	x 2 = <u>4</u>																	
FAC species <u>2</u>	x 3 = <u>6</u>																	
FACU species <u>2</u>	x 4 = <u>8</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>11</u> (A)	<u>23</u> (B)																	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
<b>Herb Stratum (Plot size: 5 feet )</b>																		
1. Poa pratensis	25	Y	FACU															
2. Leersia oryzoides	20	Y	OBL															
3. Impatiens capensis	20	Y	FACW															
4. Persicaria sagittata	15	Y	OBL															
5. Eupatorium serotinum	15	Y	FAC															
6. Carex lurida	15	Y	OBL															
7. Mimulus ringens	10	N	OBL															
8. Euthamia graminifolia	10	N	FAC															
9. Juncus effusus	5	N	FACW															
10. Andropogon virginicus	5	N	FACU															
11. Scirpus atrovirens	5	N	OBL															
145 = Total Cover																		
50% of total cover: <u>72.5</u> 20% of total cover: <u>29</u>																		
<b>Woody Vine Stratum (Plot size: 30 feet )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b>														
				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														

## SOIL

Sampling Point: W56-DP1

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W58-DP1  
Investigator(s): A.Hovanec, C. Sullivan, S. Comerford, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.739709 Long: -79.077234 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (HbD) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Wetland flags W58-1 through W58-10	

### 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)
<input checked="" type="checkbox"/> Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)
Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>&lt;1</u>		
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</u> (includes capillary fringe)		
Remarks:		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W58-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Glyceria striata</u>	<u>60</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Osmundastrum cinnamomeum</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Carex crinita</u>	<u>30</u>	<u>N</u>	<u>OBL</u>	
4. <u>Solidago rugosa</u>	<u>20</u>	<u>N</u>	<u>FAC</u>	
5. <u>Viola cucullata</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
6. <u>Lycopus americanus</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>82.5</u> 20% of total cover: <u>33</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W58-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	7.5YR 3/2	100					Lo	
1-6	2.5Y 5/1	100					SiCLO	
6-18	5Y 6/1	65	10YR 6/6	30			CLO	
			10YR 4/6	5				

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> <b>(MLRA 147, 148)</b>			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> <b>(MLRA 136, 147)</b>			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>				
<input type="checkbox"/> <b>MLRA 147, 148)</b>	<input type="checkbox"/> <b>MLRA 136)</b>				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes ☒

No \_\_\_\_\_

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W59-DP1  
Investigator(s): A. Hovanec, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 2-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.733316 Long: -79.076491 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 25 to 65 percent slopes (RgF) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
Wetland flags W59-1 through W59-11

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0.5  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 8  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: W59-DP1

Tree Stratum (Plot size: 30 feet )				Absolute % Cover	Dominant Species?	Indicator Status
1.	Acer saccharum			20	Y	FACU
2.						
3.						
4.						
5.						
6.						
7.						
				20 = Total Cover		
50% of total cover: 10				20% of total cover: 4		
Sapling/Shrub Stratum (Plot size: 15 feet )				Absolute % Cover	Dominant Species?	Indicator Status
1.	Fraxinus pennsylvanica			5	Y	FACW
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
				5 = Total Cover		
50% of total cover: 2.5				20% of total cover: 1		
Herb Stratum (Plot size: 5 feet )				Absolute % Cover	Dominant Species?	Indicator Status
1.	Polygonum virginianum			70	Y	FAC
2.	Pilea pumila			20	Y	FACW
3.	Impatiens capensis			10	N	FACW
4.	Leersia virginica			5	N	FACW
5.	Geum canadense			3	N	FACU
6.	Solidago caesia			2	N	FACU
7.						
8.						
9.						
10.						
11.						
				110 = Total Cover		
50% of total cover: 55				20% of total cover: 22		
Woody Vine Stratum (Plot size: 30 feet )				Absolute % Cover	Dominant Species?	Indicator Status
1.						
2.						
3.						
4.						
5.						
				= Total Cover		
50% of total cover: 0				20% of total cover: 0		
Remarks: (Include photo numbers here or on a separate sheet.)						

Dominance Test worksheet:			
Number of Dominant Species That Are OBL, FACW, or FAC:		3	(A)
Total Number of Dominant Species Across All Strata:		4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:		75%	(A/B)
Prevalence Index worksheet:			
Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0 (B)
Prevalence Index = B/A =		0	
Hydrophytic Vegetation Indicators:			
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation			
<input type="checkbox"/> 2 - Dominance Test is >50%			
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>			
<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)			
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Definitions of Four Vegetation Strata:			
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.			
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.			
Hydrophytic Vegetation Present?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

## SOIL

Sampling Point: **W59-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	N 4/	90	10YR 4/4	10			CIL	
6-15	2.5Y 4/1	85	2.5Y 5/4	10			CIL	
			2.5Y 5/6	5				
15-18	2.5Y 5/4	85	2.5Y 4/1	10			CI	
			2.5Y 6/1	5				

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☒ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W60-DP1  
Investigator(s): A. Hovanec, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain depression Local relief (concave, convex, none): Concave Slope (%):         
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.732377 Long: -79.076606 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 8 to 15 percent slopes (CaC) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:  
Wetland flags W60-1 through W60-5

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):         
Water Table Present? Yes ☐ No ☒ Depth (inches):         
Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:  
Wetland located at base of slope and stream drains into it, constantly receiving water.  
Wetland is bounded on three sides by berms/slopes (closed contour depression).  
Adjacent test soil pit has a water table at six inches.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W60-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: 15 feet )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: 5 feet )				
1. Pilea pumila	70	Y	FACW	
2. Polygonum virginianum	10	N	FAC	
3. Impatiens capensis	10	N	FACW	
4. Phytolacca americana	3	N	FACU	
5. Rumex crispus	3	N	FAC	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>48</u> 20% of total cover: <u>19.2</u>				
Woody Vine Stratum (Plot size: 30 feet )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.) Trees in wetland are dead.				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



## SOIL

Sampling Point: W60-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W60-UP1  
Investigator(s): C. Sullivan, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 5-8  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.732506 Long: -79.076535 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 8 to 15 percent slopes (CaC) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:

Sampling Point: **W60-UP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Prunus serotina</i>	40	Y	FACU	
2. <i>Acer saccharum</i>	30	Y	FACU	
3. <i>Robinia pseudoacacia</i>	10	N	FACU	
4. <i>Carya ovata</i>	10	N	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
90 = Total Cover				
50% of total cover: 45    20% of total cover: 18				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>				
1. <i>Rubus allegheniensis</i>	15	Y	FACU	
2. <i>Carya ovata</i>	10	Y	FACU	
3. <i>Ulmus americana</i>	10	Y	FACW	
4. <i>Fraxinus pennsylvanica</i>	10	Y	FACW	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
45 = Total Cover				
50% of total cover: 22.5    20% of total cover: 9				
<b>Herb Stratum (Plot size: 5 feet )</b>				
1. <i>Polygonum virginianum</i>	20	Y	FAC	
2. <i>Osmorhiza claytonii</i>	5	Y	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
25 = Total Cover				
50% of total cover: 12.5    20% of total cover: 5				
<b>Woody Vine Stratum (Plot size: 30 feet )</b>				
1. <i>Parthenocissus quinquefolia</i>	5	Y	FACU	
2. <i>Smilax rotundifolia</i>	5	Y	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
10 = Total Cover				
50% of total cover: 5    20% of total cover: 2				

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

Unidentifiable sedge species was present, 5% coverage - no fruiting bodies

Unidentifiable grass species was present, 5% coverage - no ligule

Neither were included in the Dominance Test

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

**Prevalence Index worksheet:**

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

Prevalence Index = B/A = 0

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

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

**Definitions of Four Vegetation Strata:**

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

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

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

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

**Hydrophytic Vegetation Present?**      Yes \_\_\_\_\_ No ☒

## SOIL

Sampling Point: **W60-UP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	2.5YR 2.5/1	100					Lo	Organic matter present
1-2	5YR 2.5/1	100					SiLo	
2-6	7.5YR 4/3	100					SiLo	
6-7	10YR 5/4	100					SiLo	Gravel present

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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: Gravel  
 Depth (inches): 7

Hydric Soil Present? Yes ☐ No ☒

**Remarks:**

Restrictive layer at seven inches.

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W61-DP1  
Investigator(s): A. Hovanec, S. Comerford Section, Township, Range: NA

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

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.729185 Long: -79.075107 Datum: NAD83

Soil Map Unit Name: Cavode very stony silt loam, 0 to 8 percent slopes (CbB) NWI classification: None

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

Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

#### Remarks:

Wetland consists of flags W61-1OE through W61-5.

Wetland W61 is located along the banks of Stream S39; W61 connects to S39 at flags S39-269 and S39-271 to flags W61-2 and W61-3.

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W61-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: 15 feet )				
1. <i>Alnus glutinosa</i>	10	Y	FACW	
2. <i>Betula alleghaniensis</i>	10	Y	FAC	
3. <i>Fraxinus pennsylvanica</i>	5	Y	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				
Herb Stratum (Plot size: 5 feet )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Parathelypteris noveboracensis</i>	30	Y	FAC	
2. <i>Verbesina alternifolia</i>	15	Y	FAC	
3. <i>Thalictrum pubescens</i>	10	N	FACW	
4. <i>Dichanthelium clandestinum</i>	10	N	FAC	
5. <i>Lycopus uniflorus</i>	10	N	OBL	
6. <i>Symphytotrichum novae-angliae</i>	5	N	FACW	
7. <i>Impatiens capensis</i>	5	N	FACW	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>				
Woody Vine Stratum (Plot size: 30 feet )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

**SOIL**

Sampling Point: **W61-DP1**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/2	92	7.5YR 5/4	5			SaLo	
			7.5YR 3/1	2				
3-11	10YR 4/2	88	10YR 2/1	10			SaLo	
			7.5YR 4/4	2				
11-14	10Y 2.5/1	100					CI Lo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (**LRR N**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- ☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
- ☒ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- ☐ Umbric Surface (F13) (**MLRA 136, 122**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
- ☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)
- ☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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: bedrock/stream bed  
 Depth (inches): 14 inches

Hydric Soil Present? Yes ☒ No ☐

**Remarks:**

An iron deposit (band) was observed between 11 and 14 inches.

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W62-DP1  
Investigator(s): A. Hovanec, N.Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): flat Slope (%):         
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.729390 Long: -79.076047 Datum: NAD83  
Soil Map Unit Name: Udorthents, mine spoil, 8 to 25 percent slopes (UDD) NWI classification: PUBHx

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

#### Remarks:

Wetland consists of flags W62-1 through W62-37.  
Wetland is a large basin that collects runoff and precipitation.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):         
Water Table Present? Yes ☒ No ☐ Depth (inches): 10  
Saturation Present? Yes ☒ No ☐ Depth (inches): 8  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

#### Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W62-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Salix sericea</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Alnus glutinosa</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Carex scabrata</u>	<u>70</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Glyceria canadensis</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Euthamia graminifolia</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Verbena hastata</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
5. <u>Impatiens capensis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
6. <u>Onoclea sensibilis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
7. <u>Vernonia noveboracensis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
8. <u>Persicaria arifolia</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
9. <u>Rubus hispidus</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
10. <u>Tiarella cordifolia</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
11. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>87.5</u> 20% of total cover: <u>35</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)  Club moss observed growing in wetland.				

**Hydrophytic Vegetation Present?**
 Yes ☒ No ☐

## SOIL

Sampling Point: W62-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/1	100					Si	with organics
2-8	10YR 5/2	90	10YR 5/6	10			CiLo	oxidized root channels
8-18	2.5YR 4/1		10YR 3/6	20			SaCiLo	oxidized root channels
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.							<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
<b>Hydric Soil Indicators:</b>								
<div style="float:right;"><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></div> <div><div><div><div><input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input checked="" type="checkbox"/> 2 cm Muck (A10) (<b>LRR N</b>) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (<b>LRR N,</b>          <b>MLRA 147, 148</b>) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)</div><div><div><input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (<b>MLRA 147, 148</b>) <input type="checkbox"/> Thin Dark Surface (S9) (<b>MLRA 147, 148</b>) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (<b>LRR N,</b>              <b>MLRA 136</b>) <input type="checkbox"/> Umbric Surface (F13) (<b>MLRA 136, 122</b>) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (<b>MLRA 148</b>) <input type="checkbox"/> Red Parent Material (F21) (<b>MLRA 127, 147</b>)</div></div></div><div><div><input type="checkbox"/> 2 cm Muck (A10) (<b>MLRA 147</b>) <input type="checkbox"/> Coast Prairie Redox (A16)                 (<b>MLRA 147, 148</b>) <input type="checkbox"/> Piedmont Floodplain Soils (F19)                 (<b>MLRA 136, 147</b>) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)</div></div></div></div>								
<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____							<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  								

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 25 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W63-DP1  
Investigator(s): A. Hovanec, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain depression Local relief (concave, convex, none): flat Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.729439 Long: -79.076746 Datum: NAD83  
Soil Map Unit Name: Cavode very stony silt loam, 0 to 8 percent slopes (CbB) NWI classification: PFO1/4E

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

#### Remarks:

Wetland consists of flags W63-1 through W63-14.

Wetland may have previously been part of a stream channel that drained Wetland W62 into Stream S39, but is now filled in with soil. Wetland W63 is sparsely vegetated, linear, and underlain by rock or gravels, possibly old stream bed materials.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):           

Water Table Present? Yes ☐ No ☒ Depth (inches):           

Saturation Present? Yes ☒ No ☐ Depth (inches): 7  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W63-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																																
1. <u>Betula alleghaniensis</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A)																																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>9</u> (B)																																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>88.89%</u> (A/B)																																																
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>0</u>																																																
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																																
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																																
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>				<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																																
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																																
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																																				
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Herb Stratum (Plot size: <u>5 feet</u> )</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Tiarella cordifolia</u></td><td><u>15</u></td><td><u>Y</u></td><td><u>FAC</u></td></tr> <tr><td>2. <u>Thalictrum dioicum</u></td><td><u>10</u></td><td><u>Y</u></td><td><u>FAC</u></td></tr> <tr><td>3. <u>Parathelypteris noveboracensis</u></td><td><u>5</u></td><td><u>Y</u></td><td><u>FAC</u></td></tr> <tr><td>4. <u>Arisaema triphyllum</u></td><td><u>5</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>					Herb Stratum (Plot size: <u>5 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Tiarella cordifolia</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	2. <u>Thalictrum dioicum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	3. <u>Parathelypteris noveboracensis</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	4. <u>Arisaema triphyllum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	5. _____	_____	_____	_____	6. _____	_____	_____	_____	7. _____	_____	_____	_____	8. _____	_____	_____	_____	9. _____	_____	_____	_____	10. _____	_____	_____	_____	11. _____	_____	_____	_____
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<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Woody Vine Stratum (Plot size: <u>30 feet</u> )</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>					Woody Vine Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____																								
Woody Vine Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status																																																	
1. _____	_____	_____	_____																																																	
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
Remarks: (Include photo numbers here or on a separate sheet.) Data point was taken in the more vegetated area of the overall sparsely vegetated wetland.																																																				

## SOIL

Sampling Point: W63-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 25 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W64-DP1  
Investigator(s): C. Sullivan, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.730175 Long: -79.076204 Datum: NAD83  
Soil Map Unit Name: Cavode very stony silt loam, 0 to 8 percent slopes (CbB) NWI classification: PSS1C/PEM5A  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

#### Remarks:

The data point is next to a seep.  
Wetland flags W64-1 through W64-57

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input checked="" type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): <1  
Water Table Present? Yes ☒ No ☐ Depth (inches): 8  
Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W64-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <i>Betula alleghaniensis</i>	25	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. <i>Fraxinus pennsylvanica</i>	15	Y	FACW															
3. <i>Carpinus caroliniana</i>	10	N	FAC															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>25</u> 20% of total cover: <u>10</u> <u>50</u> = Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>																		
1. <i>Fraxinus pennsylvanica</i>	10	Y	FACW															
2. <i>Sambucus nigra</i>	10	Y	FAC															
3. <i>Carpinus caroliniana</i>	5	N	FAC															
4. <i>Crataegus phaenopyrum</i>	5	N	FAC															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
50% of total cover: <u>15</u> 20% of total cover: <u>6</u> <u>30</u> = Total Cover																		
<b>Herb Stratum (Plot size: 5 feet )</b>																		
1. <i>Impatiens capensis</i>	20	Y	FACW	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <i>Viola cucullata</i>	15	Y	FACW															
3. <i>Packera aurea</i>	15	Y	FACW															
4. <i>Onoclea sensibilis</i>	5	N	FACW															
5. <i>Eurybia divaricata</i>	5	N	UPL															
6. <i>Symplocarpus foetidus</i>	5	N	OBL															
7. <i>Pilea pumila</i>	5	N	FACW															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
50% of total cover: <u>35</u> 20% of total cover: <u>14</u> <u>70</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: 30 feet )</b>																		
1. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) <i>Eurybia divaricata</i> was not list on the NWPL and is assumed to have an upland indicator status.  Green ash tree was dying, but was not dead.																		

## SOIL

Sampling Point: W64-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 3/2	100					Lo	organic matter
1-12	10YR 4/1	85	10YR 5/6	15			CiLo	
12-18	10YR 5/1	90	7.5YR 4/6	10			SaCiLo	Gravelly
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					<sup>2</sup> Location: PL=Pore Lining, M=Matrix.			
<b>Hydric Soil Indicators:</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Dark Surface (S7)			<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )			<b>(MLRA 147, 148)</b>		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Piedmont Floodplain Soils (F19)		
<input type="checkbox"/> Stratified Layers (A5)			<input checked="" type="checkbox"/> Depleted Matrix (F3)			<b>(MLRA 136, 147)</b>		
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Depressions (F8)					
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b> <b>MLRA 147, 148</b> )			<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b> <b>MLRA 136</b> )					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )					
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )					
<b>Restrictive Layer (if observed):</b>						<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Type: _____								
Depth (inches): _____								
Remarks:  Soil layer 12 to 18 inches was extremely saturated, with an almost liquid like consistency.								



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Sommerset Co. Sampling Date: 25 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W64-DP-2  
Investigator(s): C. Sullivan, S. Comerford Section, Township, Range: NA

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

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.730224 Long: -79.077927 Datum: NAD83

Soil Map Unit Name: Cavode very stony silt loam, 0 to 8 percent slopes (CbB) NWI classification: PSS1C/PEM5A

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

Are Vegetation         , Soil         , or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

#### Remarks:

Wetland 64 consists of flags 1 through 57.  
Data point located on a well drained flood plain with sandy soils.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):         

Water Table Present? Yes ☐ No ☒ Depth (inches):         

Saturation Present? Yes ☐ No ☒ Depth (inches):           
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W64-DP-2

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. <u>Acer rubrum</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u></td> <td>(A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
50% of total cover: <u>30</u> 20% of total cover: <u>12</u> <u>60</u> = Total Cover				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																																				
1. <u>Carpinus caroliniana</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
50% of total cover: <u>5</u> 20% of total cover: <u>2</u> <u>10</u> = Total Cover																																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																																				
1. <u>Solidago gigantea</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
2. <u>Rubus hispidus</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>																																	
3. <u>Persicaria sagittata</u>	<u>10</u>	<u>N</u>	<u>OBL</u>																																	
4. <u>Dichanthelium clandestinum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>																																	
5. <u>Onoclea sensibilis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>																																	
6. <u>Eutrochium purpureum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																																	
7. <u>Thalictrum pubescens</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																																	
8. <u>Impatiens capensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																																	
9. <u>Persicaria virginiana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																																	
10. <u>Carex intumescens</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																																	
11. <u>Symplocarpus foetidus</u>	<u>5</u>	<u>N</u>	<u>OBL</u>																																	
50% of total cover: <u>62.5</u> 20% of total cover: <u>25</u> <u>125</u> = Total Cover																																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u> _____ = Total Cover																																				
Remarks: (Include photo numbers here or on a separate sheet.)  Forested portion of wetland continues into emergent floodplain bench.																																				

## SOIL

Sampling Point: W64-DP-2

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Sommerset Co. Sampling Date: 25 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W65-DP1  
Investigator(s): S. Comerford, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%):         
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.730226 Long: -79.076985 Datum: NAD83  
Soil Map Unit Name: Cavode very stony silt loam, 0 to 8 percent slopes (CbB) NWI classification:         
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No        (If no, explain in Remarks.)  
Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No         
Are Vegetation       , Soil       , or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <u>      </u>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <u>      </u>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <u>      </u>	

Remarks:  
Wetland 65 consists of flags W65-1 through W65-25.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>      </u> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<u>      </u> True Aquatic Plants (B14)	<u>      </u> Sparsely Vegetated Concave Surface (B8)
<u>      </u> High Water Table (A2)	<u>      </u> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<u>      </u> Saturation (A3)	<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	<u>      </u> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Water Marks (B1)	<u>      </u> Presence of Reduced Iron (C4)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Thin Muck Surface (C7)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>      </u> Other (Explain in Remarks)	<u>      </u> Stunted or Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)		<u>      </u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)		<u>      </u> Shallow Aquitard (D3)
<u>      </u> Water-Stained Leaves (B9)		<u>      </u> Microtopographic Relief (D4)
<u>      </u> Aquatic Fauna (B13)		<u>      </u> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No        Depth (inches): <1  
Water Table Present? Yes ☒ No        Depth (inches): 19  
Saturation Present? Yes ☒ No        Depth (inches): 14  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No       

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

#### Remarks:

Water table perched on clay layer.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W65-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <i>Acer rubrum</i>	40	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>70%</u> (A/B)														
2. <i>Betula alleghaniensis</i>	20	Y	FACU															
3. <i>Crataegus crus-galli</i>	10	N	FACU															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>70</u> = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																		
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>																		
1. <i>Tsuga canadensis</i>	10	Y	FACU															
2. <i>Betula alleghaniensis</i>	5	Y	FACU															
3. <i>Sambucus nigra</i>	5	Y	FAC															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<b>Herb Stratum (Plot size: 5 feet )</b>																		
1. <i>Packera aurea</i>	15	Y	FACW															
2. <i>Rosa multiflora</i>	10	Y	FACU															
3. <i>Rubus hispidus</i>	10	Y	FACW															
4. <i>Impatiens capensis</i>	10	Y	FACW															
5. <i>Pilea pumila</i>	10	Y	FACW															
6. <i>Persicaria pensylvanica</i>	5	N	FACW															
7. <i>Symplocarpus foetidus</i>	5	N	OBL															
8. <i>Viola cucullata</i>	5	N	FACW															
9. <i>Solidago gigantea</i>	5	N	FACW															
10. <i>Berberis thunbergii</i>	5	N	FACU															
11. _____	_____	_____	_____															
<u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
<b>Woody Vine Stratum (Plot size: 30 feet )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

## SOIL

Sampling Point: **W65-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 5/2	90	10YR 5/8	10			CI Lo	
3-5	5Y 4/1	65	10YR 4/3	30			CI Lo	
			5YR 3/4	5				
5-14	7.5YR 6/2	65	7.5 YR 5/6	30			Si Lo	
			2.5YR 4/6	5				
14-18	2.5Y 5/1	60	10YR 5/6	40			CI	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

Water perched atop clay layer at 14 inches bgs

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Sommerset Co. Sampling Date: 24 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W66-DP1  
Investigator(s): C. Sullivan, A. Hovanec Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave, Flat Slope (%): 2-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.730629 Long: -79.077408 Datum: NAD83  
Soil Map Unit Name: Cavode very stony silt loam, 0 to 8 percent slopes (CbB) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

#### Remarks:

Wetland 66 consists of flags W66-1 through W66-29.

This wetland is linear with a downward slope through a valley.  
Wetland 66 drains into stream 55 then into wetland 64.

### 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)	_____ True Aquatic Plants (B14)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 12  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W66-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u></td> <td>(A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____																																				
_____ = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
<b>Herb Stratum (Plot size: 5 feet )</b> 1. <u>Symplocarpus foetidus</u> <u>3</u> <u>Y</u> <u>OBL</u> 2. <u>Thelypteris palustris</u> <u>3</u> <u>Y</u> <u>FACW</u> 3. <u>Hydrophyllum canadense</u> <u>2</u> <u>Y</u> <u>FACU</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____																																				
_____ = Total Cover																																				
50% of total cover: <u>4</u> 20% of total cover: <u>1.6</u>																																				
<b>Woody Vine Stratum (Plot size: 30 feet )</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
_____ = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																				
Remarks: (Include photo numbers here or on a separate sheet.)          																																				



## SOIL

Sampling Point: W66-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/3	100					SiLO	Organic matter
3-14	5Y 4/1	80	5Y 5/8	10			SiCl	Oxidized root channels
			10YR 5/8	10				
14-18	7.5YR 5/6	60	10YR 6/3	40			Cl	Gravelly

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> ( <b>MLRA 147, 148</b> )			
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> ( <b>MLRA 136, 147</b> )			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N, MLRA 147, 148</b> )	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N, MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes ☒

No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 25 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W67-DP1  
Investigator(s): N. Davis, C. Sullivan, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.729774 Long: -79.077746 Datum: NAD83  
Soil Map Unit Name: Cavode very stony silt loam, 0 to 8 percent slopes (CbB) NWI classification: PSS1C/PEM5A

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:  
Wetland 67 consist of flags W67-1 through W67-14, plus W67-A.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W67-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Carya ovata</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Betula alleghaniensis</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Symphotrichum lanceolatum</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. <u>Persicaria maculosa</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Vernonia noveboracensis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
4. <u>Galium obtusum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
5. <u>Symplocarpus foetidus</u>	<u>10</u>	<u>N</u>	<u>OBL</u>															
6. <u>Solidago rugosa</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
7. <u>Oxalis dillenii</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
8. <u>Apocynum cannabinum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
9. <u>Elymus virginicus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>105</u> = Total Cover 50% of total cover: <u>52.5</u> 20% of total cover: <u>21</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Clematis virginiana</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

## SOIL

Sampling Point: W67-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 25 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W68-DP1  
Investigator(s): N. Davis, C. Sullivan, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat Slope (%):           
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.728668 Long: -79.075525 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 25 to 65 percent slopes (RgF) NWI classification: PFO1/4E  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation         , Soil         , or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation         , Soil         , or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):           
Water Table Present? Yes ☒ No ☐ Depth (inches): 20  
Saturation Present? Yes ☒ No ☐ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Wetland 68 consists of flags W68-1 through W68-17.  
Open ended wetland located at the toe of a slope.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W68-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Betula alleghaniensis</i>	20	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 6 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
20 = Total Cover 50% of total cover: 10    20% of total cover: 4				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>				
1. <i>Viburnum lentago</i>	10	Y	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10 = Total Cover 50% of total cover: 5    20% of total cover: 2				
<b>Herb Stratum (Plot size: 5 feet )</b>				
1. <i>Chrysosplenium americanum</i>	40	Y	OBL	
2. <i>Packera aurea</i>	15	Y	FACW	
3. <i>Symphyotrichum lanceolatum</i>	15	Y	FACW	
4. <i>Solidago rugosa</i>	15	Y	FAC	
5. <i>Lysimachia nummularia</i>	10	N	FACW	
6. <i>Pilea pumila</i>	10	N	FACW	
7. <i>Rumex crispus</i>	10	N	FAC	
8. <i>Urtica dioica</i>	10	N	FACU	
9. <i>Onoclea sensibilis</i>	5	N	FACW	
10. <i>Persicaria sagittata</i>	5	N	OBL	
11. <i>Poa palustris</i>	5	N	FACW	
140 = Total Cover 50% of total cover: 70    20% of total cover: 28				
<b>Woody Vine Stratum (Plot size: 30 feet )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: 0    20% of total cover: 0				
Remarks: (Include photo numbers here or on a separate sheet.)				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)  
 Total Number of Dominant Species Across All Strata: 6 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index worksheet:**  

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

 Prevalence Index = B/A = 0

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

**Definitions of Four Vegetation Strata:**  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**    Yes ☒    No \_\_\_\_\_

## SOIL

Sampling Point: W68-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features			Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			Loc <sup>2</sup>
0-8	N 2.5/1	90	10YR 6/6	10			CiLo	oxidized root channels
8-16	N 4/1	90	10YR 4/6	10			Cl	
16-18	10YR 4/1	75	10YR 6/4	15			SaCl	
			10YR 5/2	10				

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input checked="" type="checkbox"/> <b>(MLRA 147, 148)</b>			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> <b>(MLRA 136, 147)</b>			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>				
<input type="checkbox"/> <b>MLRA 147, 148)</b>	<input checked="" type="checkbox"/> <b>MLRA 136)</b>				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

<div>Restrictive Layer (if observed):</div> <div>Type: _____</div> <div>Depth (inches): _____</div>	Hydric Soil Present?    Yes _____    No _____
Remarks:     	

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Sommerset Co. Sampling Date: 26 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W69-DP1  
Investigator(s): N. Davis, C. Sullivan, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.723320 Long: -79.076807 Datum: NAD83  
Soil Map Unit Name: Wharton silt loam, 3 to 8 percent slopes (WhB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
Wetland 69 consists of flags W69-1 through W69-7.  
Evidence of frequently used ATV/truck trail with deep tire ruts present in Wetland.

### 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)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
<input checked="" type="checkbox"/> Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

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

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

Remarks:  
Frogs/tadpoles found in ponded water within tire ruts.



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W69-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. <i>Alnus serrulata</i>	5	Y	OBL	Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 5 (B)																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>0</td> <td>x 1 =</td> <td>0</td> </tr> <tr> <td>FACW species</td> <td>0</td> <td>x 2 =</td> <td>0</td> </tr> <tr> <td>FAC species</td> <td>0</td> <td>x 3 =</td> <td>0</td> </tr> <tr> <td>FACU species</td> <td>0</td> <td>x 4 =</td> <td>0</td> </tr> <tr> <td>UPL species</td> <td>0</td> <td>x 5 =</td> <td>0</td> </tr> <tr> <td>Column Totals:</td> <td>0 (A)</td> <td></td> <td>0 (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = 0</td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	0	x 1 =	0	FACW species	0	x 2 =	0	FAC species	0	x 3 =	0	FACU species	0	x 4 =	0	UPL species	0	x 5 =	0	Column Totals:	0 (A)		0 (B)	Prevalence Index = B/A = 0			
Total % Cover of:		Multiply by:																																		
OBL species	0	x 1 =	0																																	
FACW species	0	x 2 =	0																																	
FAC species	0	x 3 =	0																																	
FACU species	0	x 4 =	0																																	
UPL species	0	x 5 =	0																																	
Column Totals:	0 (A)		0 (B)																																	
Prevalence Index = B/A = 0																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
_____	_____	_____	_____																																	
5 = Total Cover 50% of total cover: 2.5    20% of total cover: 1				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
_____ = Total Cover 50% of total cover: 0    20% of total cover: 0																																				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
_____	_____	_____	_____																																	
120 = Total Cover 50% of total cover: 60    20% of total cover: 24																																				
<b>Herb Stratum (Plot size: 5 feet )</b>																																				
1. <i>Persicaria sagittata</i>	40	Y	OBL	<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)  Sphagnum moss present on dead trees around and in wetland.																																
2. <i>Viola cucullata</i>	20	Y	FACW																																	
3. <i>Symphyotrichum lateriflorum</i>	20	Y	FACW																																	
4. <i>Euthamia graminifolia</i>	20	Y	FAC																																	
5. <i>Solidago rugosa</i>	10	N	FAC																																	
6. <i>Scirpus cyperinus</i>	5	N	FACW																																	
7. <i>Oxalis stricta</i>	5	N	FACU																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
_____ = Total Cover 50% of total cover: 0    20% of total cover: 0																																				
<b>Woody Vine Stratum (Plot size: 30 feet )</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
_____ = Total Cover 50% of total cover: 0    20% of total cover: 0																																				

## SOIL

Sampling Point: W69-DP1

<b>Profile Description:</b> (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 6/1	90	10YR 5/6	10			Lo	oxidized root channels
1-6	10YR 4/1	80	10YR 3/6	20			CILo	oxidized root channels
6-12	10YR 6/2	60	10YR 5/3	30			Cl	oxidized root channels
			10YR 5/6	10				
12-18	7.5YR 6/3	60	10YR 7/8	40			Cl	

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

<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> ) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N, MLRA 147, 148</b> ) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N, MLRA 136</b> ) <input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> ) <input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> ) <input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> ) <input type="checkbox"/> Coast Prairie Redox (A16) ( <b>MLRA 147, 148</b> ) <input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 136, 147</b> ) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b>  Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 01 Jun, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W1-DP3  
Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.793158 Long: -79.032914 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 3 to 8 percent slopes (CaB) NWI classification: PEM5A

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W1-DP3

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Salix nigra</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u>Alnus glutinosa</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
40 = Total Cover				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. <u>Salix nigra</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Alnus glutinosa</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Cornus amomum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
30 = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Lysimachia nummularia</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Impatiens capensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Euthamia graminifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Leersia oryzoides</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
5. <u>Ranunculus acris</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
6. <u>Lycopus americanus</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
105 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>52.5</u> 20% of total cover: <u>21</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W1-DP3

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 4/26/2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W36-UP  
Investigator(s): C. Sullivan, C. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat Slope (%):         
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.744892 Long: -79.047111 Datum: NAD83  
Soil Map Unit Name: Cookport very stony loam, 8 to 25 percent slopes (CpD) NWI classification:       

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Rain previous night Multiple tire ruts	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>&lt;1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W36-UP

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. <u>Liriodendron tulipifera</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)																
2. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>0</u>																				
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
50% of total cover: <u>15</u> 20% of total cover: <u>6</u> <u>30</u> = Total Cover																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																				
1. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																
50% of total cover: <u>5</u> 20% of total cover: <u>2</u> <u>10</u> = Total Cover																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																				
1. <u>Aster sp.</u>	<u>30</u>	<u>-</u>	<u>-</u>																	
2. <u>Rubus hispidus</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>																	
3. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>✓</u>																
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____	<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> <u>45</u> = Total Cover																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																				
1. <u>Smilax rotundifolia</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>✓</u>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> <u>15</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) The Aster species was unidentifiable and therefore was not included in the Dominance test.																				

## SOIL

Sampling Point: W36-UP

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 30 / SR 82 Interchange City/County: Coatesville / Chester Sampling Date: 4/27/2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W60-DP2  
Investigator(s): S. Comerford, C. Frey Section, Township, Range: N/A  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): MLRA148 Lat: 39.732361 Long: -79.076624 Datum: NAD83  
Soil Map Unit Name: Cavode silt loam, 8 to 15 percent slopes (CaC) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 10  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Constructed berm causes ponding of S51 thus creating a wetland depression.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W60-DP2**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u></td> <td>(A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____																																				
_____ = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
<b>Herb Stratum (Plot size: 5 feet )</b> 1. <i>Impatiens capensis</i> 50 Y FACW 2. <i>Floerkea proserpinacoides</i> 25 Y FAC 3. <i>Claytonia virginica</i> 5 N FAC 4. <i>Galium mollugo</i> 5 N FACU 5. <i>Ranunculus sp.</i> 2 -- NA 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____																																				
87 = Total Cover																																				
50% of total cover: <u>43.5</u> 20% of total cover: <u>17.4</u>																																				
<b>Woody Vine Stratum (Plot size: 30 feet )</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
_____ = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																				
Remarks: (Include photo numbers here or on a separate sheet.) Dead trees and shrubs were observed in the wetland. The Ranunculus species was unidentifiable and therefore not included in the Dominance test.																																				

## SOIL

Sampling Point: W60-DP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/2	98	10YR 6/6	2	C	M	SiLo	Organics
5-7	10YR 4/1	85	5YR 3/4	15	C	M	SiLo	Organics
7-18	10YR 3/1	100					SiCilo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<b>(MLRA 147, 148)</b>	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<b>(MLRA 136, 147)</b>	
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>		
<b>MLRA 147, 148)</b>	<b>MLRA 136)</b>		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122)</b>		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148)</b>		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147)</b>		

Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:  
Soils are disturbed from construction of the berm.

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 25 Apr, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W70-DP1  
Investigator(s): C. Sullivan, S. Comerford, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat Slope (%): 2  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.771646 Long: -79.030615 Datum: NAD83  
Soil Map Unit Name: Cookport very stony loam, 8 to 25 percent slopes (CpD) NWI classification: PSS

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>&lt;1</u>	
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>5</u> (includes capillary fringe)	

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W70-DP

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Betula lenta</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)														
2. <u>Acer rubrum</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Betula lenta</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Hamamelis virginiana</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
3. <u>Acer rubrum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Dryopteris carthusiana</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Rubus hispidus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Symplocarpus foetidus</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>															
4. <u>Aster sp.</u>	<u>5</u>	<u>-</u>	<u>-</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>70</u> = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) The Aster species was unidentifiable and therefore not included in the Dominance test.				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____														

## SOIL

Sampling Point: W70-DP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	7.5YR 2.5/2	100					Lo	Organic matter
1-5	10YR 5/2	80	10YR 4/4	20	C	M	SaCl	
5-14	2.5Y 4/1	90	10YR 5/6	10	C	M	SaCl	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input checked="" type="checkbox"/> <b>(MLRA 147, 148)</b>			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> <b>(MLRA 136, 147)</b>			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>				
<input checked="" type="checkbox"/> <b>MLRA 147, 148)</b>	<input checked="" type="checkbox"/> <b>MLRA 136)</b>				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

**Restrictive Layer (if observed):**  
Type: Rock  
Depth (inches): 14

Hydric Soil Present?   Yes ☒   No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 4/26/2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W71-DP1  
Investigator(s): C. Frey, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 2  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.75616 Long: -79.041997 Datum: NAD83  
Soil Map Unit Name: Cookport very stony loam, 8 to 25 percent slopes (CpD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Flags W71-1 through W71-15	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1</u>		
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Approximately 1 inch of surface water was observed near the location of the data point.		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W71-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Betula lenta</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)														
2. <u>Acer rubrum</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Fraxinus nigra</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>65</u> = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>62</u></td> <td>x 2 = <u>124</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>55</u></td> <td>x 4 = <u>220</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>157</u> (A)</td> <td><u>464</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>62</u>	x 2 = <u>124</u>	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species <u>55</u>	x 4 = <u>220</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>157</u> (A)	<u>464</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>62</u>	x 2 = <u>124</u>																	
FAC species <u>40</u>	x 3 = <u>120</u>																	
FACU species <u>55</u>	x 4 = <u>220</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>157</u> (A)	<u>464</u> (B)																	
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Berberis thunbergii</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Rosa multiflora</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Impatiens capensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. <u>Poa palustris</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Viola macloskeyi</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
4. <u>Sambucus nigra</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
5. <u>Dryopteris carthusiana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
6. <u>Rosa multiflora</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
7. <u>Cyperus esculentus</u>	<u>2</u>	<u>N</u>	<u>FACW</u>															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>72</u> = Total Cover 50% of total cover: <u>36</u> 20% of total cover: <u>14.4</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Vitis riparia</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
<u>2</u> = Total Cover 50% of total cover: <u>1</u> 20% of total cover: <u>0.4</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		



## SOIL

Sampling Point: W71-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 4/26/2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W71-UP  
Investigator(s): C. Sullivan, C. Frey Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): flat Slope (%): 5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.75638 Long: -79.041955 Datum: NAD83  
Soil Map Unit Name: Cookport very stony loam, 8 to 25 percent slopes (CpD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W71-UP

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>37.5%</u> (A/B)														
2. <u>Betula lenta</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Prunus serotina</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>85</u> = Total Cover 50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Magnolia acuminata</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Dryopteris intermedia</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Maianthemum canadense</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>														
2. <u>Vitis labrusca</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>																		

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

## SOIL

Sampling Point: W71-UP

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 4/27/2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W72-DP1  
Investigator(s): C. Sullivan, C. Frey Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): \_\_\_\_\_  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.72312 Long: -79.072622 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 25 to 60 percent slopes (HzF) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2</u>		
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>5</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Approximately 2 inches of surface water was observed near the data point.		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W72-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. <u>Acer rubrum</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																
2. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
3. <u>Betula alleghaniensis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																	
4. <u>Tsuga canadensis</u>	<u>2</u>	<u>N</u>	<u>FACU</u>																	
5. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>37</u></td> <td>x 2 = <u>74</u></td> </tr> <tr> <td>FAC species <u>32</u></td> <td>x 3 = <u>96</u></td> </tr> <tr> <td>FACU species <u>19</u></td> <td>x 4 = <u>76</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>88</u> (A)</td> <td><u>246</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.8</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>37</u>	x 2 = <u>74</u>	FAC species <u>32</u>	x 3 = <u>96</u>	FACU species <u>19</u>	x 4 = <u>76</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>88</u> (A)	<u>246</u> (B)	Prevalence Index = B/A = <u>2.8</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>37</u>	x 2 = <u>74</u>																			
FAC species <u>32</u>	x 3 = <u>96</u>																			
FACU species <u>19</u>	x 4 = <u>76</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>88</u> (A)	<u>246</u> (B)																			
Prevalence Index = B/A = <u>2.8</u>																				
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____	_____	_____	_____																	
<div style="text-align: right;"> <u>32</u> = Total Cover                      50% of total cover: <u>16</u>    20% of total cover: <u>6.4</u> </div>				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																				
1. <u>Kalmia latifolia</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>																	
2. <u>Tsuga canadensis</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Betula lenta</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____	_____	_____	_____																	
<div style="text-align: right;"> <u>12</u> = Total Cover                      50% of total cover: <u>6</u>    20% of total cover: <u>2.4</u> </div>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																				
1. <u>Viola macloskeyi</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Dryopteris carthusiana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																	
3. <u>Kalmia latifolia</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																
4. <u>Aster sp.</u>	<u>5</u>	<u>-</u>	<u>-</u>																	
5. <u>Poa palustris</u>	<u>2</u>	<u>N</u>	<u>FACW</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____	1. <u>Smilax rotundifolia</u> <u>2</u> <u>---</u> <u>FAC</u>																
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____	2. _____ 3. _____ 4. _____ 5. _____																
<div style="text-align: right;"> <u>47</u> = Total Cover                      50% of total cover: <u>23.5</u>    20% of total cover: <u>9.4</u> </div>																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																				
1. <u>Smilax rotundifolia</u>	<u>2</u>	<u>---</u>	<u>FAC</u>																	
2. _____	_____	_____	_____	2. _____ 3. _____ 4. _____ 5. _____																
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<div style="text-align: right;"> <u>2</u> = Total Cover                      50% of total cover: <u>1</u>    20% of total cover: <u>0.4</u> </div>				Remarks: (Include photo numbers here or on a separate sheet.) The Aster species was unidentifiable and therefore not included in the Dominance test.																

## SOIL

Sampling Point: W72-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 Apr, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W73-DP1  
Investigator(s): C. Sullivan, S. Comerford, C. Frey Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.723396 Long: -79.074369 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 15 to 25 percent slopes (RgD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): <1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																																
1. <u>Acer rubrum</u>	10	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)																																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>7</u> (B)																																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57.14%</u> (A/B)																																																
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <div>                         Total % Cover of:                          OBL species <u>0</u>                          FACW species <u>0</u>                          FAC species <u>0</u>                          FACU species <u>0</u>                          UPL species <u>0</u>                          Column Totals: <u>0</u> (A)                     </div> <div>                         Multiply by:                          x 1 = <u>0</u>                          x 2 = <u>0</u>                          x 3 = <u>0</u>                          x 4 = <u>0</u>                          x 5 = <u>0</u>                          (B)                     </div> </div> Prevalence Index = B/A = <u>0</u>																																																
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																																
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																																
<u>27</u> = Total Cover 50% of total cover: <u>13.5</u> 20% of total cover: <u>5.4</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																																
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																																
<b>Herb Stratum (Plot size: 5 feet )</b> <table style="width: 100%;"> <thead> <tr> <th></th> <th>Absolute % Cover</th> <th>Dominant Species?</th> <th>Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Packera aurea</u></td><td>10</td><td>Y</td><td>FACW</td></tr> <tr><td>2. <u>Dryopteris carthusiana</u></td><td>5</td><td>Y</td><td>FAC</td></tr> <tr><td>3. <u>Poa palustris</u></td><td>5</td><td>Y</td><td>FACW</td></tr> <tr><td>4. <u>Eurybia radula</u></td><td>5</td><td>N</td><td>OBL</td></tr> <tr><td>5. <u>Rubus hispidus</u></td><td>2</td><td>N</td><td>FACW</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>						Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Packera aurea</u>	10	Y	FACW	2. <u>Dryopteris carthusiana</u>	5	Y	FAC	3. <u>Poa palustris</u>	5	Y	FACW	4. <u>Eurybia radula</u>	5	N	OBL	5. <u>Rubus hispidus</u>	2	N	FACW	6. _____	_____	_____	_____	7. _____	_____	_____	_____	8. _____	_____	_____	_____	9. _____	_____	_____	_____	10. _____	_____	_____	_____	11. _____	_____	_____	_____
	Absolute % Cover	Dominant Species?	Indicator Status																																																	
1. <u>Packera aurea</u>	10	Y	FACW																																																	
2. <u>Dryopteris carthusiana</u>	5	Y	FAC																																																	
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5. <u>Rubus hispidus</u>	2	N	FACW																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
8. _____	_____	_____	_____																																																	
9. _____	_____	_____	_____																																																	
10. _____	_____	_____	_____																																																	
11. _____	_____	_____	_____																																																	
<b>Woody Vine Stratum (Plot size: 30 feet )</b> <table style="width: 100%;"> <thead> <tr> <th></th> <th>Absolute % Cover</th> <th>Dominant Species?</th> <th>Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>						Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____																								
	Absolute % Cover	Dominant Species?	Indicator Status																																																	
1. _____	_____	_____	_____																																																	
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
Remarks: (Include photo numbers here or on a separate sheet.)																																																				

## SOIL

Sampling Point: \_\_\_\_\_

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 15 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W74-DP1  
Investigator(s): C. Sullivan, S. Comerford, C. Frey Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain depression Local relief (concave, convex, none): concave Slope (%): \_\_\_\_\_  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.725309 Long: -79.073366 Datum: NAD83  
Soil Map Unit Name: Cookport very stony loam, 3 to 8 percent slopes (CpB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 2  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Approximately 2 inches of surface water was observed adjacent to the location of the data point.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W74-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u></td> <td>(A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																																				
1. <i>Viola macloskeyi</i>	<u>10</u>	<u>Y</u>	<u>FACW</u>																																	
2. <i>Aster</i> sp.	<u>5</u>	<u>-</u>	<u>-</u>	<b>Remarks:</b> (Include photo numbers here or on a separate sheet.) The <i>Aster</i> species was unidentifiable and therefore not included in the Dominance test.																																
3. <i>Eurybia radula</i>	<u>5</u>	<u>Y</u>	<u>OBL</u>																																	
4. <i>Phalaris arundinacea</i>	<u>2</u>	<u>N</u>	<u>FACW</u>																																	
5. <i>Poa palustris</i>	<u>2</u>	<u>N</u>	<u>FACW</u>																																	
6. _____	_____	_____	_____	<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																
11. _____	_____	_____	_____																																	
_____ = Total Cover																																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				

## SOIL

Sampling Point: W74-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 2/2	100					LoSa	Organic matter, Oxidized root channel
1-8	2.5Y 5/1	80	7.5YR 4/6	20	C	M/PL	SaCl	Oxidized root channel
8-14	2.5Y 6/2	70	7.5YR 4/6	30	C	M/PL	LoSa	
14-18	2.5Y 6/2	30	7.5YR 4/6	70	C	M	LoSa	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> ( <b>MLRA 147, 148</b> )			
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> ( <b>MLRA 136, 147</b> )			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>				
<input type="checkbox"/> <b>MLRA 147, 148</b> )	<input type="checkbox"/> <b>MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes ☒

No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 15 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W75-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 2  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.746241 Long: -79.064416 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 25 to 65 percent slopes (RgF) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): <1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 14  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 3  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Wetland is located in old pasture. Likely former strip mine.  
Seeps on hill slope, poor infiltration, rivulets to the bottom where it pools/ channelizes outside of the PSA.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>87</u></td> <td>x 2 = <u>174</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>25</u></td> <td>x 4 = <u>100</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>122</u> (A)</td> <td><u>304</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.5</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>87</u>	x 2 = <u>174</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>25</u>	x 4 = <u>100</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>122</u> (A)	<u>304</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>87</u>	x 2 = <u>174</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>25</u>	x 4 = <u>100</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>122</u> (A)	<u>304</u> (B)																	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>																		
1. <u>Rosa multiflora</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
<b>Herb Stratum (Plot size: 5 feet )</b>																		
1. <u>Phalaris arundinacea</u>	<u>80</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Persicaria maculosa</u>	<u>15</u>	<u>N</u>	<u>FACW</u>															
3. <u>Centaurea jacea</u>	<u>15</u>	<u>N</u>	<u>FACU</u>															
4. <u>Rumex crispus</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
5. <u>Juncus effusus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
6. <u>Salix petiolaris</u>	<u>2</u>	<u>N</u>	<u>FACW</u>															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
50% of total cover: <u>66</u> 20% of total cover: <u>26.4</u>																		
<b>Woody Vine Stratum (Plot size: 30 feet )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		

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

<b>Hydrophytic Vegetation Present?</b>	Yes <input checked="" type="checkbox"/> No _____
--	--

## SOIL

Sampling Point: \_\_\_\_\_

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/2	95	5YR 3/4	5	C	M	Lo	Oxidized root channels, Organics
2-14	2.5Y 5/2	70	7.5YR 7/6	25	C	M	Cl	Gravelly
			5YR 4/4	5	C	M		
14-18	10YR 5/4	60	10YR 5/1	30	D	M	SiCl	Gravelly
			7.5YR 5/8	10	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 \_\_\_\_\_ No \_\_\_\_\_

**Remarks:**

Soil profile is disturbed / gravelly.



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 15 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W75-UPL  
Investigator(s): C. Frey, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 10  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.746346 Long: -79.064215 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 25 to 65 percent slopes (RgF) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Data point located in actively farmed field.		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W75-UPL

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <i>Dactylis glomerata</i>	<u>30</u>	<u>Y</u>	<u>FACU</u>	
2. <i>Poa pratensis</i>	<u>30</u>	<u>Y</u>	<u>FACU</u>	
3. <i>Taraxacum officinale</i>	<u>15</u>	<u>N</u>	<u>FACU</u>	
4. <i>Vicia sativa</i>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. <i>Coreopsis lanceolata</i>	<u>10</u>	<u>N</u>	<u>FACU</u>	
6. <i>Barbarea vulgaris</i>	<u>5</u>	<u>N</u>	<u>FACU</u>	
7. <i>Torilis nodosa</i>	<u>2</u>	<u>N</u>	<u>UPL</u>	
8. <i>Anthoxanthum odoratum</i>	<u>2</u>	<u>N</u>	<u>FACU</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>52</u> 20% of total cover: <u>20.8</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

**Hydrophytic Vegetation Present?**
 Yes \_\_\_\_\_ No ✓

## SOIL

Sampling Point: W75-UPL

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 16 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W76-DP1  
Investigator(s): S. Comerford, C. Frey Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain depression Local relief (concave, convex, none): Concave Slope (%): 1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.724248 Long: -79.074423 Datum: NAD83  
Soil Map Unit Name: Cookport very stony loam, 3 to 8 percent slopes (CpB) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 3  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 3  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Former overflow channel for S39.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W76-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)																																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>0</u></td> <td>(A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																																				
1. <u>Acer saccharum</u>	<u>1</u>	<u>Y</u>	<u>FACU</u>																																	
2. <u>Impatiens capensis</u>	<u>1</u>	<u>Y</u>	<u>FACW</u>	<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																																
3. <u>Parathelypteris noveboracensis</u>	<u>1</u>	<u>Y</u>	<u>FAC</u>																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____	_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																																
11. _____	_____	_____	_____																																	
_____ = Total Cover																																				
50% of total cover: <u>1.5</u> 20% of total cover: <u>0.6</u>																																				
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.) Sparsely vegetated concave surface																																				

## SOIL

Sampling Point: W76-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 16 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W77-DP1  
Investigator(s): C. Frey, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.797012 Long: -79.03768 Datum: NAD83  
Soil Map Unit Name: Ernest silt loam, 3 to 8 percent slopes (ErB) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 5

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W77-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Poa palustris</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Juncus effusus</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Typha X glauca</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Dipsacus fullonum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. <u>Mentha spicata</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
6. <u>Rumex crispus</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>51</u> 20% of total cover: <u>20.4</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				



## SOIL

Sampling Point: W77-DP1

<b>Profile Description:</b> (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2						Si	Organics
2-8	2.5Y 3/2		7.5YR 3/4	3	C	M	ClLo	
			10YR 7/6	5	D	M		
8-18	10YR 7/6		7.5YR 3/4	5	C	M	SaLo	Gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ Histosol (A1)
 ☐ Dark Surface (S7)

☐ Histic Epipedon (A2)
 ☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)

☐ Black Histic (A3)
 ☐ Thin Dark Surface (S9) (**MLRA 147, 148**)

☐ Hydrogen Sulfide (A4)
 ☐ Loamy Gleyed Matrix (F2)

☐ Stratified Layers (A5)
 ☒ Depleted Matrix (F3)

☐ 2 cm Muck (A10) (**LRR N**)
 ☐ Redox Dark Surface (F6)

☐ Depleted Below Dark Surface (A11)
 ☐ Depleted Dark Surface (F7)

☐ Thick Dark Surface (A12)
 ☐ Redox Depressions (F8)

☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
 ☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)

☐ Sandy Gleyed Matrix (S4)
 ☐ Umbric Surface (F13) (**MLRA 136, 122**)

☐ Sandy Redox (S5)
 ☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)

☐ Stripped Matrix (S6)
 ☐ Red Parent Material (F21) (**MLRA 127, 147**)

Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes ☒

No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 17 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W77/78-UPL  
Investigator(s): C. Sullivan, S. Comerford, C. Frey, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): flat Slope (%):         
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.797313 Long: -79.037092 Datum: NAD83  
Soil Map Unit Name: Ernest silt loam, 3 to 8 percent slopes (ErB) NWI classification:       

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

Are Vegetation       , Soil       , or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

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

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):       

Water Table Present? Yes ☐ No ☒ Depth (inches):       

Saturation Present? Yes ☐ No ☒ Depth (inches):         
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W77/78-UPL

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Herb Stratum (Plot size: <u>5 feet</u> )																		
1. Poa sp.	30	-	-															
2. Securigera varia	20	Y	UPL															
3. Galium mollugo	15	Y	FACU															
4. Dipsacus fullonum	15	Y	FACU															
5. Leucanthemum vulgare	15	Y	UPL															
6. Solidago lancifolia	15	Y	UPL															
7. Solidago sp.	10	-	-															
8. Festuca rubra	5	N	FACU															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>62.5</u> 20% of total cover: <u>25</u>																		
Woody Vine Stratum (Plot size: <u>30 feet</u> )																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) The Poa and Solidago species were unidentifiable and were not included in the Dominance test.																		
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																		
<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																		
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																		

## SOIL

Sampling Point: W77/78-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10 YR 3/3	100					SiLo	
8-12	10 YR 4/3	98	10 YR 3/6	2	C	M	SiClLo	gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<b>(MLRA 147, 148)</b>	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<b>(MLRA 136, 147)</b>	
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>		
<b>MLRA 147, 148)</b>	<b>MLRA 136)</b>		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )		

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 12

Hydric Soil Present? Yes No ✓

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 15 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W78A-DP1  
Investigator(s): S. Sullivan, C. Comerford, C. Frey, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): Flat Slope (%): 1  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.797291 Long: -79.036858 Datum: NAD83  
Soil Map Unit Name: Ernest silt loam, 3 to 8 percent slopes (ErB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 7  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Adjacent to roadway, previously disturbed by fill/ construction

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W78A-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____				
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum (Plot size: 5 feet )</b> 1. <u>Typha X glauca</u> <u>95</u> <u>Y</u> <u>OBL</u> 2. <u>Impatiens capensis</u> <u>2</u> <u>N</u> <u>FACW</u> 3. <u>Dipsacus fullonum</u> <u>2</u> <u>N</u> <u>FACU</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____				
_____ = Total Cover				
50% of total cover: <u>49.5</u> 20% of total cover: <u>19.8</u>				
<b>Woody Vine Stratum (Plot size: 30 feet )</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____

## SOIL

Sampling Point: W78A-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 16 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W78-DP1  
Investigator(s): N. Davis, C. Frey Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.797229 Long: 79.037233 Datum: NAD83  
Soil Map Unit Name: Ernest silt loam, 3 to 8 percent slopes (ErB) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 10

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W78-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Cornus amomum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Typha X glauca</u>	<u>60</u>	<u>Y</u>	<u>OBL</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. <u>Poa sp.</u>	<u>30</u>	<u>-</u>	<u>-</u>															
3. <u>Poa palustris</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
4. <u>Juncus effusus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
5. <u>Mentha spicata</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
6. <u>Aster sp.</u>	<u>5</u>	<u>-</u>	<u>-</u>															
7. <u>Dipsacus fullonum</u>	<u>2</u>	<u>N</u>	<u>FACU</u>															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>61</u> 20% of total cover: <u>24.4</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) The Aster and Poa species were unidentifiable and were not included in the Dominance test.																		

## SOIL

Sampling Point: W78-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 16 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W79-DP1  
Investigator(s): N. Davis, C. Frey Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): flat Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.798189 Long: -79.036151 Datum: NAD83  
Soil Map Unit Name: Ernest silt loam, 3 to 8 percent slopes (ErB) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 14

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Wetland is located in cut roadside drainage swale

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W79-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Typha X glauca</u>	<u>80</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Ranunculus repens</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
3. <u>Dipsacus fullonum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. <u>Aster sp.</u>	<u>5</u>	<u>-</u>	<u>-</u>	
5. <u>Goldenrod sp.</u>	<u>5</u>	<u>-</u>	<u>-</u>	
6. <u>Galium mollugo</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>56</u> 20% of total cover: <u>22.4</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.) The Aster and Goldenrod species were unidentifiable and were not included in the Dominance test.				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

## SOIL

Sampling Point: W79-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/2	100					SiLo	organics
3-8	10YR 3/1	95	2.5Y 5/4	5	C	M	SiLo	
8-18	2.5Y 5/3	90	7.5YR 4/4	10	C	PL	SiCiLo	Gravel
						<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.		
						<sup>2</sup> Location: PL=Pore Lining, M=Matrix.		
<b>Hydric Soil Indicators:</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>				
<input type="checkbox"/> Histosol (A1)				<input type="checkbox"/> Dark Surface (S7)				
<input type="checkbox"/> Histic Epipedon (A2)				<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )				
<input type="checkbox"/> Black Histic (A3)				<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )				
<input type="checkbox"/> Hydrogen Sulfide (A4)				<input type="checkbox"/> Loamy Gleyed Matrix (F2)				
<input type="checkbox"/> Stratified Layers (A5)				<input checked="" type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )				<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)				<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)				<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b> <b>MLRA 147, 148</b> )				<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b> <b>MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)				<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)				<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				
							<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<b>Restrictive Layer (if observed):</b>								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  								

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 16 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W80-DP1  
Investigator(s): C. Frey, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.79904 Long: -79.035857 Datum: NAD83  
Soil Map Unit Name: Ernest silt loam, 3 to 8 percent slopes (ErB) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 8

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W80-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. <u>Salix nigra</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>0</u>																				
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____	_____	_____	_____																	
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																				
1. <u>Typha X glauca</u>	<u>65</u>	<u>Y</u>	<u>OBL</u>																	
2. <u>Ranunculus repens</u>	<u>20</u>	<u>N</u>	<u>FAC</u>																	
3. <u>Dipsacus fullonum</u>	<u>15</u>	<u>N</u>	<u>FACU</u>																	
4. <u>Impatiens capensis</u>	<u>15</u>	<u>N</u>	<u>FACW</u>																	
5. <u>Aster sp.</u>	<u>5</u>	<u>-</u>	<u>-</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																
6. <u>Goldenrod sp.</u>	<u>5</u>	<u>-</u>	<u>-</u>																	
7. <u>Packera aurea</u>	<u>2</u>	<u>N</u>	<u>FACW</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																
11. _____	_____	_____	_____																	
<u>127</u> = Total Cover 50% of total cover: <u>63.5</u> 20% of total cover: <u>25.4</u>																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) The Aster and Goldenrod species were unidentifiable and were not included in the Dominance test.																				

## SOIL

Sampling Point: W80-DP1

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 16 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W80-UPL  
Investigator(s): C. Sullivan, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 2  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.798918 Long: -79.03606 Datum: NAD83  
Soil Map Unit Name: Ernest silt loam, 3 to 8 percent slopes (ErB) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)		_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)		_____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:

Data point taken under drain at upper limit, but no hydrology was present.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W80-UPL

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>7</u></td> <td>x 3 = <u>21</u></td> </tr> <tr> <td>FACU species <u>55</u></td> <td>x 4 = <u>220</u></td> </tr> <tr> <td>UPL species <u>7</u></td> <td>x 5 = <u>35</u></td> </tr> <tr> <td>Column Totals: <u>114</u> (A)</td> <td><u>356</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.1</u>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>7</u>	x 3 = <u>21</u>	FACU species <u>55</u>	x 4 = <u>220</u>	UPL species <u>7</u>	x 5 = <u>35</u>	Column Totals: <u>114</u> (A)	<u>356</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>10</u>	x 1 = <u>10</u>																	
FACW species <u>35</u>	x 2 = <u>70</u>																	
FAC species <u>7</u>	x 3 = <u>21</u>																	
FACU species <u>55</u>	x 4 = <u>220</u>																	
UPL species <u>7</u>	x 5 = <u>35</u>																	
Column Totals: <u>114</u> (A)	<u>356</u> (B)																	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Herb Stratum (Plot size: <u>5 feet</u> )																		
1. <i>Phalaris arundinacea</i>	30	Y	FACW	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <i>Danthonia compressa</i>	30	Y	FACU															
3. <i>Lotus corniculatus</i>	20	N	FACU															
4. <i>Carex vulpinoidea</i>	10	N	OBL															
5. <i>Rosa multiflora</i>	5	N	FACU															
6. <i>Ranunculus acris</i>	5	N	FAC															
7. <i>Securigera varia</i>	5	N	UPL															
8. <i>Juncus effusus</i>	5	N	FACW															
9. <i>Rumex crispus</i>	2	N	FAC															
10. <i>Leucanthemum vulgare</i>	2	N	UPL															
11. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>57</u> 20% of total cover: <u>22.8</u>																		
Woody Vine Stratum (Plot size: <u>30 feet</u> )																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) Within maintained ROW. All vegetation is cut.																		

**Definitions of Four Vegetation Strata:**  
  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
  
**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No ✓

SOIL

Sampling Point: ,W80-UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/2	90	10YR 6/6	5	C	M	CILO	Road fill, gritty
			7.5YR 4/6	5	C	M		
4-10	2.5Y 6/1	50	7.5YR 4/6	15	C	M	CILO	
	10YR 3/1	30						
10-14	10YR 3/1	80	10YR 6/4	15	C	M	SaCl	mixed matrix
			7.5YR 5/6	5	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (**LRR N**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- ☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- ☐ Umbric Surface (F13) (**MLRA 136, 122**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
- ☐ Red Parent Material (F21) (**MLRA 127, 147**)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (**MLRA 147**)
- ☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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: Rock  
Depth (inches): 14

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Soil is disturbed. Mixed matrix below surface layer.  
Clay soils are dry and crumbly within highway ROW.

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 17 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W80-DP1  
Investigator(s): C. Frey, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain bench Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.793359 Long: -79.039464 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 15 to 25 percent slopes (RgD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 8  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Floodplain bench with dense hydrophytic vegetation.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W80-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Juglans nigra</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Symplocarpus foetidus</u>	<u>60</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Impatiens capensis</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Galium asprellum</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Onoclea sensibilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
5. <u>Aster sp.</u>	<u>5</u>	<u>-</u>	<u>-</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>65</u> 20% of total cover: <u>26</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____				
Remarks: (Include photo numbers here or on a separate sheet.) The Aster species was unidentifiable and was not included in the Dominance test.				

## SOIL

Sampling Point: W80-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 2/1	100					SiLo	organics
1-11	10YR 3/1	70	7.5YR 3/4	15	C	PL	SiLo	
			7.5YR 3/4	15	C	M		
11-14	10YR 4/1	85	7.5YR 3/4	15	C	M	SaSi	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☒ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N,**  
    **MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N,**  
    **MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16)  
        (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19)  
        (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

Restrictive Layer (if observed):

Type: Rock \_\_\_\_\_  
Depth (inches): 14 \_\_\_\_\_

Hydric Soil Present?   Yes ☒   No \_\_\_\_\_

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 17 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W81-UPL  
Investigator(s): C. Frey, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): flat Slope (%): 10  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.793367 Long: -79.039414 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 15 to 25 percent slopes (RgD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W81-UPL

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Juglans nigra</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16.67%</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <div>                         Total % Cover of:                          OBL species <u>0</u>                          FACW species <u>0</u>                          FAC species <u>0</u>                          FACU species <u>0</u>                          UPL species <u>0</u>                          Column Totals: <u>0</u> (A)                     </div> <div>                         Multiply by:                          x 1 = <u>0</u>                          x 2 = <u>0</u>                          x 3 = <u>0</u>                          x 4 = <u>0</u>                          x 5 = <u>0</u>                          (B)                     </div> </div> Prevalence Index = B/A = <u>0</u>
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Lonicera morrowii</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Rhus typhina</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Rubus occidentalis</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<u>105</u> = Total Cover 50% of total cover: <u>52.5</u> 20% of total cover: <u>21</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Hesperis matronalis</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Symplocarpus foetidus</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Poa pratensis</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	
4. <u>Poa sp.</u>	<u>15</u>	<u>-</u>	<u>-</u>	
5. <u>Alliaria petiolata</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
6. <u>Lamium purpureum</u>	<u>10</u>	<u>N</u>	<u>UPL</u>	
7. <u>Arctium minus</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.) Rhus typhina, Rubus occidentalis, and Lamium purpureum are not listed on NWPL and are assumed to be UPL. The Poa species was unidentifiable and was not included in the Dominance test.				



## SOIL

Sampling Point: W81-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 2/2	100					SiLo	Organics
5-13	10YR 3/1	100					SiLo	
13-16	10YR 3/1	80	10YR 4/1	20	D	M	SiLo	
16-18	2.5Y 4/2	90	10YR 3/6	10	C	PL	SiClLo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input checked="" type="checkbox"/> <b>(MLRA 147, 148)</b>			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> <b>(MLRA 136, 147)</b>			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>				
<b>MLRA 147, 148)</b>	<b>MLRA 136)</b>				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

Restrictive Layer (if observed):

Type:  
Depth (inches):

Hydric Soil Present?    Yes \_\_\_\_\_ No ✓\_\_\_\_\_

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 17 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W83-DP1  
Investigator(s): C. Frey, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain bench Local relief (concave, convex, none): flat Slope (%): 0%  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.792795 Long: -79.038694 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 15 to 25 percent slopes (RgD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 5  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): Surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W83-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer saccharum</u>	10	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>				
1. <u>Salix nigra</u>	20	Y	OBL	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Fraxinus pennsylvanica</u>	10	Y	FACW	
3. <u>Ribes americanum</u>	5	N	FACW	
4. <u>Rosa multiflora</u>	5	N	FACU	
5. <u>Prunus virginiana</u>	2	N	FACU	
6. <u>Prunus padus</u>	2	N	UPL	
7. <u>Juglans nigra</u>	2	N	FACU	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>23</u> 20% of total cover: <u>9.2</u>				
<b>Herb Stratum (Plot size: 5 feet )</b>				
1. <u>Symplocarpus foetidus</u>	60	Y	OBL	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <u>Ranunculus repens</u>	30	Y	FAC	
3. <u>Impatiens capensis</u>	20	N	FACW	
4. <u>Rumex obtusifolius</u>	15	N	FACU	
5. <u>Galium asprellum</u>	10	N	OBL	
6. <u>Alliaria petiolata</u>	5	N	FACU	
7. <u>Onoclea sensibilis</u>	5	N	FACW	
8. <u>Glechoma hederacea</u>	2	N	FACU	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>73.5</u> 20% of total cover: <u>29.4</u>				
<b>Woody Vine Stratum (Plot size: 30 feet )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W83-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 18 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W85-DP1  
Investigator(s): Connor Sullivan, Nelson Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Flat Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.791456 Long: -79.035261 Datum: NAD83  
Soil Map Unit Name: Wharton silt loam, 8 to 15 percent slopes (WhC) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input checked="" type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 8"

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 7"  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: W85-DP1

<b>Tree Stratum</b> (Plot size: <u>30 feet</u> )				<b>Dominance Test worksheet:</b>	
1. <u>Acer rubrum</u>	Absolute % Cover <u>10</u>	Dominant Species? <u>Y</u>	Indicator Status <u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>6</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				<b>Prevalence Index worksheet:</b>	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				<u>Total % Cover of:</u> <u>Multiply by:</u>	
1. <u>Cornus racemosa</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	OBL species _____ x 1 = <u>0</u>	
2. <u>Sambucus nigra</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	FACW species _____ x 2 = <u>0</u>	
3. _____	_____	_____	_____	FAC species _____ x 3 = <u>0</u>	
4. _____	_____	_____	_____	FACU species _____ x 4 = <u>0</u>	
5. _____	_____	_____	_____	UPL species _____ x 5 = <u>0</u>	
6. _____	_____	_____	_____	Column Totals: _____ (A) <u>0</u> (B)	
7. _____	_____	_____	_____	Prevalence Index = B/A = <u>0</u>	
8. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
9. _____	_____	_____	_____	___ 1 - Rapid Test for Hydrophytic Vegetation	
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				___ 3 - Prevalence Index is $\leq 3.0^1$	
1. <u>Symplocarpus foetidus</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
2. <u>Impatiens capensis</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
3. <u>Rudbeckia laciniata</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>		
4. <u>Thilactrum sp.</u>	<u>10</u>	<u>N</u>	<u>-</u>		
5. <u>Galium asprellum</u>	<u>5</u>	<u>N</u>	<u>OBL</u>		
6. <u>Alliaria petiolata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>100</u> = Total Cover 50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				<b>Definitions of Four Vegetation Strata:</b>	
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
1. _____	_____	_____	_____	<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
2. _____	_____	_____	_____	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
3. _____	_____	_____	_____	<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.	
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>_____</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: (Include photo numbers here or on a separate sheet.)					
The Thilactrum species was unidentifiable and was not included in the dominance test.					

## SOIL

Sampling Point: W85-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/2	100					SiLo	
2-7	10YR 3/2	90	10YR 4/6	10	C	PL	SiLo	Oxidized rhizospheres
7-18	10YR 5/2	85	10YR 5/8	15	C	M	SiCiLo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input checked="" type="checkbox"/> ( <b>MLRA 147, 148</b> )			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> ( <b>MLRA 136, 147</b> )			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>				
<b>MLRA 147, 148</b> )	<b>MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present?

Yes ☒

No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 18 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W86-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): flat Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.791035 Long: -79.035106 Datum: NAD83  
Soil Map Unit Name: Wharton silt loam, 8 to 15 percent slopes (WhC) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 13

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 8  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W86-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>9</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>77.78%</u> (A/B)
2. <u>Acer negundo</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				
1. <u>Cornus amomum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Tsuga canadensis</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Acer negundo</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>				
1. <u>Symplocarpus foetidus</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Impatiens capenses</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Galium asprellum</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Reynoutria japonica</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
5. <u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
6. <u>Alliaria petiolata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
7. <u>Agrimonia sp.</u>	<u>5</u>	<u>N</u>	<u>-</u>	
8. <u>Solidago sp.</u>	<u>2</u>	<u>N</u>	<u>-</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
9. <u>Veratrum viride</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>119</u> = Total Cover 50% of total cover: <u>59.5</u> 20% of total cover: <u>23.8</u>				
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____
Remarks: (Include photo numbers here or on a separate sheet.) The Agrimonia and Solidago species were not identifiable and were not included in the Dominance test.				

## SOIL

Sampling Point: W86-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 5/18/23  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W87-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain depression Local relief (concave, convex, none): flat Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.790917 Long: -79.034849 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 25 to 65 percent slopes (RgF) NWI classification: R4SBC  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:			

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
<b>Primary Indicators (minimum of one is required; check all that apply)</b>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>		
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>5</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		<b>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b>
Remarks:		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W87-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b> 1. <u>Cornus amomum</u> <u>60</u> <u>Y</u> <u>FACW</u>				
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				
<b>Herb Stratum (Plot size: 5 feet )</b> 1. <u>Symplocarpus foetidus</u> <u>40</u> <u>Y</u> <u>OBL</u>				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Impatiens capensis</u> <u>40</u> <u>Y</u> <u>FACW</u>	_____	_____	_____	
3. <u>Aster sp.</u> <u>10</u> <u>N</u> <u>-</u>	_____	_____	_____	
4. <u>Poa palustris</u> <u>5</u> <u>N</u> <u>FACW</u>	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>				
<b>Woody Vine Stratum (Plot size: 30 feet )</b> 1. _____				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.) The Aster species was not identifiable and was not included in the hydrophytic vegetation indicator tests.				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____

## SOIL

Sampling Point: W87-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 18 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W88-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): flat Slope (%): 1-2  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.78978 Long: -79.034896 Datum: NAD83  
Soil Map Unit Name: Wharton silt loam, 8 to 15 percent slopes (WhC) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 17  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 13  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

#### Remarks:

Water table and saturation observed over 12 inches below ground surface and were not counted as wetland hydrology indicators.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W88-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																																
1. <u>Alnus glutinosa</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)																																																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>7</u> (B)																																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71.43%</u> (A/B)																																																
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				<b>Prevalence Index worksheet:</b> <u>        </u> Total % Cover of: <u>        </u> Multiply by: OBL species <u>        </u> x 1 = <u>0</u> FACW species <u>        </u> x 2 = <u>0</u> FAC species <u>        </u> x 3 = <u>0</u> FACU species <u>        </u> x 4 = <u>0</u> UPL species <u>        </u> x 5 = <u>0</u> Column Totals: <u>        </u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>																																																
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>        </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>        </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>        </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																																
<u>75</u> = Total Cover 50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																																
<u>        </u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No <u>        </u>																																																
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Symplocarpus foetidus</u></td><td><u>20</u></td><td><u>Y</u></td><td><u>OBL</u></td></tr> <tr><td>2. <u>Fraxinus pennsylvanica</u></td><td><u>10</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>3. <u>Maianthemum racemosum</u></td><td><u>10</u></td><td><u>Y</u></td><td><u>FACU</u></td></tr> <tr><td>4. <u>Solidago patula</u></td><td><u>10</u></td><td><u>Y</u></td><td><u>OBL</u></td></tr> <tr><td>5. <u>Solidago sp.</u></td><td><u>10</u></td><td><u>Y</u></td><td><u>-</u></td></tr> <tr><td>6. <u>Veratrum viride</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACW</u></td></tr> <tr><td>7. <u>Onoclea sensibilis</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACW</u></td></tr> <tr><td>8. <u>Agrimonia sp.</u></td><td><u>5</u></td><td><u>N</u></td><td><u>-</u></td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>						Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Symplocarpus foetidus</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	2. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	3. <u>Maianthemum racemosum</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	4. <u>Solidago patula</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	5. <u>Solidago sp.</u>	<u>10</u>	<u>Y</u>	<u>-</u>	6. <u>Veratrum viride</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	7. <u>Onoclea sensibilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	8. <u>Agrimonia sp.</u>	<u>5</u>	<u>N</u>	<u>-</u>	9. _____	_____	_____	_____	10. _____	_____	_____	_____	11. _____	_____	_____	_____
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<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>						Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____																								
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1. _____	_____	_____	_____																																																	
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4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
Remarks: (Include photo numbers here or on a separate sheet.) The Solidago and Agrimonia species were unable to be identified and were not included in the Dominance test.																																																				

## SOIL

Sampling Point: W88-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 4/3	100					SiCl	
6-13	10YR 4/1	70	5YR 4/6	30	C	PL	SiL	Oxidized root channels
13-18	10YR 3/1	50	10YR 4/1	20	D	M	SaL	
			10YR 3/6	30	C	PL		Oxidized root channels

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input checked="" type="checkbox"/> ( <b>MLRA 147, 148</b> )			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> ( <b>MLRA 136, 147</b> )			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b> <b>MLRA 147, 148</b> )	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b> <b>MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 18 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W89-DP1  
Investigator(s): C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.789031 Long: -79.034993 Datum: NAD83  
Soil Map Unit Name: Atkins silt loam, 0 to 3 percent slopes, frequently flooded (At) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
W89-DP1 represents the PEM portion of Wetland W89.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 8  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:  
Saturation observed at 8", but no water table was observed.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W89-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>				
1. <u>Salix nigra</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Sambucus nigra</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Fraxinus pennsylvanica</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
4. <u>Cornus amomum</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>7</u> 20% of total cover: <u>2.8</u>				
<b>Herb Stratum (Plot size: 5 feet )</b>				
1. <u>Symplocarpus foetidus</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
2. <u>Impatiens capensis</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Lysimachia nummularia</u>	<u>20</u>	<u>N</u>	<u>FACW</u>	
4. <u>Solidago sp.</u>	<u>20</u>	<u>N</u>	<u>-</u>	
5. <u>Poa palustris</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
6. <u>Alisma subcordatum</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
7. <u>Nuphar advena</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>67.5</u> 20% of total cover: <u>27</u>				
<b>Woody Vine Stratum (Plot size: 30 feet )</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.) The Solidago species was not identifiable and therefore was not included in the Dominance test.				

## SOIL

Sampling Point: W89-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 18 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W89-DP2  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): flat Slope (%): 0%  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.789331 Long: -79.035112 Datum: NAD83  
Soil Map Unit Name: Atkins silt loam, 0 to 3 percent slopes, frequently flooded (At) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
W89-DP2 represents the PSS portion of Wetland W89.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 10  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): Surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W89-DP2

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Quercus rubra</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____	_____	_____	_____	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix sericea</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Sambucus nigra</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
3. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
4. <u>Lonicera morrowii</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<u>55</u> = Total Cover 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				
Herb Stratum (Plot size: <u>5 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Symplocarpus foetidus</u>	<u>70</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Impatiens capensis</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Solidago patula</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
4. <u>Alliaria petiolata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>115</u> = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____

## SOIL

Sampling Point: W89-DP2

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 18 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W90-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.788445 Long: -79.035078 Datum: NAD83  
Soil Map Unit Name: Atkins silt loam, 0 to 3 percent slopes, frequently flooded (At) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation ☒, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): Surface  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): Surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 3 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = 0 FACW species _____ x 2 = 0 FAC species _____ x 3 = 0 FACU species _____ x 4 = 0 UPL species _____ x 5 = 0 Column Totals: _____ (A) 0 (B)  Prevalence Index = B/A = 0
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: 0 20% of total cover: 0				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: 0 20% of total cover: 0				
<b>Herb Stratum (Plot size: 5 feet )</b>				
1. Impatiens capensis	10	Y	FACW	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. Lemna minor	10	Y	OBL	
3. Poa palustris	5	Y	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: 12.5 20% of total cover: 5				
<b>Woody Vine Stratum (Plot size: 30 feet )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: 0 20% of total cover: 0				
Remarks: (Include photo numbers here or on a separate sheet.) Lemna species observed in area of ponded water				



## SOIL

Sampling Point: \_\_\_\_\_

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/1	100					Si	
2-6	2.5Y 4/1	85	5YR 3/4	10	C	M	SiCl	
			10YR 6/6	5	C	PL		Oxidized root channels
12-18	7.5YR 5/6	70	10YR 5/1	10	D	M	Cl	
			10YR 3/1	20	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 18 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W90-UP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): flat Slope (%): 5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.788485 Long: -79.035059 Datum: NAD83  
Soil Map Unit Name: Atkins silt loam, 0 to 3 percent slopes, frequently flooded (At) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Located downslope from ponded water fed by pipe.	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
____ Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
____ Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)
<b>Field Observations:</b>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W90-UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Carya ovata</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>28.57%</u> (A/B)														
2. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Malus domestica</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>															
4. <u>Acer saccharum</u>	<u>15</u>	<u>N</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>25</u></td> <td>x 5 = <u>125</u></td> </tr> <tr> <td>Column Totals: <u>160</u> (A)</td> <td><u>570</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.6</u>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species _____	x 3 = <u>0</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>25</u>	x 5 = <u>125</u>	Column Totals: <u>160</u> (A)	<u>570</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>5</u>	x 1 = <u>5</u>																	
FACW species <u>40</u>	x 2 = <u>80</u>																	
FAC species _____	x 3 = <u>0</u>																	
FACU species <u>90</u>	x 4 = <u>360</u>																	
UPL species <u>25</u>	x 5 = <u>125</u>																	
Column Totals: <u>160</u> (A)	<u>570</u> (B)																	
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Carya ovata</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Rubus occidentalis</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Impatiens capensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Poa pratensis</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Alliaria petiolata</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. <u>Aster sp.</u>	<u>10</u>	<u>N</u>	<u>-</u>															
5. <u>Glechoma hederacea</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. <u>Galium asprellum</u>	<u>5</u>	<u>N</u>	<u>OBL</u>															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>70</u> = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) Aster sp. was not identifiable and was not included in the hydrophytic vegetation indicator tests.																		

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

**Definitions of Four Vegetation Strata:**  
  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
  
**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**      Yes \_\_\_\_\_ No ✓

## SOIL

Sampling Point: W90-UP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 19 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W91-DP1  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.789317 Long: -79.034785 Datum: NAD83  
Soil Map Unit Name: Atkins silt loam, 0 to 3 percent slopes, frequently flooded (At) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> True Aquatic Plants (B14)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): <1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): Surface  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): Surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W91-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum (Plot size: 15 feet )</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum (Plot size: 5 feet )</b>				
1. <i>Symplocarpus foetidus</i>	30	Y	OBL	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. <i>Impatiens capensis</i>	20	Y	FACW	
3. <i>Poa palustris</i>	10	N	FACW	
4. <i>Equisetum arvense</i>	10	N	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>				
<b>Woody Vine Stratum (Plot size: 30 feet )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W91-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 19 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W94-DP1  
Investigator(s): C.Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Flat Slope (%): 5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.788417 Long: -79.035427 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 15 to 25 percent slopes (RgD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): <1"  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 7"  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): Surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W94-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer saccharum</u>	25	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)
2. <u>Fraxinus pennsylvanica</u>	5	N	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				
1. <u>Fraxinus pennsylvanica</u>	20	Y	FACW	
2. <u>Acer saccharum</u>	10	Y	FACU	
3. <u>Rosa multiflora</u>	5	N	FACU	
4. <u>Crataegus crus-galli</u>	2	N	FACU	
5. <u>Prunus serotina</u>	2	N	FACU	
<u>39</u> = Total Cover 50% of total cover: <u>19.5</u> 20% of total cover: <u>7.8</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>				
1. <u>Impatiens capensis</u>	50	Y	FACW	
2. <u>Lysimachia nummularia</u>	20	Y	FACW	
3. <u>Poa palustris</u>	15	N	FACW	
4. <u>Galium asprellum</u>	5	N	OBL	
5. <u>Persicaria virginiana</u>	5	N	FAC	
6. <u>Avens sp.</u>	5	N	-	
7. <u>Glechoma hederacea</u>	5	N	FACU	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
8. <u>Symplocarpus foetidus</u>	2	N	OBL	
9. <u>Tussilago farfara</u>	2	N	FACU	
10. <u>Agrimonia parviflora</u>	2	N	FACW	
11. _____				
<u>111</u> = Total Cover 50% of total cover: <u>55.5</u> 20% of total cover: <u>22.2</u>				
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>				
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)  The Avens species was not identifiable and was not included in the dominance test.				

## SOIL

Sampling Point: **W94-DP1****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 4/2	100					Lo	
1-12	2.5Y 4/1	70	7.5YR 4/6	10	C	PL	CI Lo	Oxidized root channels
			5YR 4/4	20	C	PL		
12-18	2.5Y 4/2	80	7.5YR 5/6	15	C	M	CI	Oxidized root channels
			2.5Y 6/2	5	D	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☒ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 31 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W96-DP1  
Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.732683 Long: -79.05863 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 25 to 60 percent slopes. (HzF) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): <1  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 3  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Seep area at the toe of slope, along access road.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: **W96-DP1**

Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: 15 feet )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: 5 feet )				
1. <i>Osmundastrum cinnamomeum</i>	20	Y	FACW	
2. <i>Carex lurida</i>	20	Y	OBL	
3. <i>Osmunda claytoniana</i>	10	N	FAC	
4. <i>Viola cucullata</i>	10	N	FACW	
5. <i>Alnus glutinosa</i>	5	N	FACW	
6. <i>Oclemena acuminata</i>	5	N	FACU	
7. <i>Rubus occidentalis</i>	5	N	UPL	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
75 = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>				
Woody Vine Stratum (Plot size: 30 feet )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Rubus occidentalis is not listed on the NWPL and is assumed to have an upland indicator status.				

## SOIL

Sampling Point: W96-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 31 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W97-DP1  
Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA

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

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.730362 Long: -79.059821 Datum: NAD83

Soil Map Unit Name: Cookport very stony loam, 3 to 8 percent slopes (CpB) NWI classification:         

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

Are Vegetation         , Soil         , or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

#### Remarks:

Potentially in old access road with tire ruts. Wetland drains towards active access road.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):         

Water Table Present? Yes ☐ No ☒ Depth (inches):         

Saturation Present? Yes ☐ No ☒ Depth (inches):           
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W97-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer rubrum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. <u>Betula lenta</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B) Prevalence Index = B/A = <u>0</u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> 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.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height. <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____
1. <u>Osmundastrum cinnamomeum</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Rubus hispidus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
3. <u>Viola cucullata</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
4. <u>Juncus effusus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
5. <u>Eleocharis acicularis</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
6. <u>Medeola virginiana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
7. <u>Carex lurida</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>100</u> = Total Cover 50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W97-DP1

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 31 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W98-DP1  
Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 1-2  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.727806 Long: -79.062454 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (HbD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 7  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Tire ruts throughout wetland. It is apparent the property owner attempts to drain wetland area downhill.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W98-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer rubrum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)
2. <u>Nyssa sylvatica</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Betula lenta</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. <u>Acer saccharum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. <u>Magnolia acuminata</u>			<u>FACU</u>	
6. _____				
7. _____				
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				
1. <u>Betula lenta</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Hamamelis virginiana</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
3. <u>Kalmia latifolia</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Osmundastrum cinnamomeum</u>	<u>80</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Medeola virginiana</u>	<u>20</u>	<u>N</u>	<u>FAC</u>	
3. <u>Maianthemum racemosum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
4. <u>Rubus hispidus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
<u>115</u> = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____
1. <u>Smilax glauca</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
2. _____				
3. _____				
4. _____				
5. _____				
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>          				

## SOIL

Sampling Point: W98-DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/2	100					Lo	Organics
3-8	7.5YR 3/1	100					Lo	Less organics
8-13	2.5Y 6/1	95	2.5Y 8/6	5	C	M	SaLo	
13-18	2.5Y 6/1	80	10YR 7/8	20	C	M	SaLo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> <b>(MLRA 147, 148)</b>			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> <b>(MLRA 136, 147)</b>			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b> <b>MLRA 147, 148</b> )	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b> <b>MLRA 136</b> )				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )				

<b>Restrictive Layer (if observed):</b>	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Type: _____ Depth (inches): _____	

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 31 May, 2023

Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W99-DP1

Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA

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

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.728227 Long: -79.062056 Datum: NAD83

Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely bouldery (HzD) NWI classification:         

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

Are Vegetation         , Soil         , or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:			

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>&lt;1</u>	<b>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b>		
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>5</u>			
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W99-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer rubrum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57.14%</u> (A/B)
2. <u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Prunus serotina</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
4. <u>Acer saccharum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <div>                         Total % Cover of:                         <div style="margin-top: 5px;">                             OBL species <u>0</u>                              FACW species <u>2</u>                              FAC species <u>1</u>                              FACU species <u>4</u>                              UPL species <u>0</u>                              Column Totals: <u>7</u> (A)                         </div> </div> <div>                         Multiply by:                         <div style="margin-top: 5px;">                             x 1 = <u>0</u>                              x 2 = <u>4</u>                              x 3 = <u>3</u>                              x 4 = <u>16</u>                              x 5 = <u>0</u>                              (B) <u>23</u> </div> </div> </div> Prevalence Index = B/A = <u>3.3</u>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____	_____	_____	_____	
<div style="text-align: right;"> <u>60</u> = Total Cover                          50% of total cover: <u>30</u>    20% of total cover: <u>12</u> </div>				
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				
1. <u>Betula lenta</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Nyssa sylvatica</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Hamamelis virginiana</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
_____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	
<div style="text-align: right;"> <u>45</u> = Total Cover                          50% of total cover: <u>22.5</u>    20% of total cover: <u>9</u> </div>				
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>				
1. <u>Osmundastrum cinnamomeum</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. <u>Viola cucullata</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Microstegium vimineum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
4. <u>Maianthemum racemosum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. <u>Rubus hispidus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
6. <u>Eurybia divaricata</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	<div style="text-align: right;"> <u>120</u> = Total Cover                          50% of total cover: <u>60</u>    20% of total cover: <u>24</u> </div>
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	_____	_____	_____	
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>				
1. <u>Smilax glauca</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<div style="text-align: right;"> <u>10</u> = Total Cover                          50% of total cover: <u>5</u>    20% of total cover: <u>2</u> </div>
_____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	

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

## SOIL

Sampling Point: W99-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 01 Jun, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W100-DP1  
Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 3-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.728432 Long: -79.066323 Datum: NAD83  
Soil Map Unit Name: Cookport very stony loam, 3 to 8 percent slopes (CpB) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 7  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Seep in old access road, lots of iron deposits.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W100-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Betula alleghaniensis</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____	_____	_____	_____	
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Nyssa sylvatica</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Betula alleghaniensis</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Betula lenta</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
4. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
Herb Stratum (Plot size: <u>5 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Carex crinita</u>	<u>60</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Osmundastrum cinnamomeum</u>	<u>15</u>	<u>N</u>	<u>FACW</u>	
3. <u>Carex scoparia</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
4. <u>Rubus hispidus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
5. <u>Eutrochium purpureum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>90</u> = Total Cover 50% of total cover: <u>45</u> 20% of total cover: <u>18</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____



## SOIL

Sampling Point: W100-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 01 Jun, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W101-DP1  
Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.725791 Long: -79.080218 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 15 to 25 percent slopes (RgD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
Wetland is located at toe of slope in a roadway

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): <1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 10  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W101-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer rubrum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____	_____	_____	_____	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: <u>5 feet</u> )				
1. <u>Viola cucullata</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Lycopus americanus</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Impatiens capensis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
4. <u>Symphyotrichum prenanthoides</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
5. <u>Symplocarpus foetidus</u>	<u>2</u>	<u>N</u>	<u>OBL</u>	
6. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>57</u> = Total Cover 50% of total cover: <u>28.5</u> 20% of total cover: <u>11.4</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: W101-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 01 Jun, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W102-DP1  
Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.726716 Long: -79.079904 Datum: NAD83  
Soil Map Unit Name: Brinkerton soils, 0 to 3 percent slopes (BrA) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Moss Trim Lines (B16)
_____ True Aquatic Plants (B14)	_____ Dry-Season Water Table (C2)
_____ Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)
_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)
_____ Iron Deposits (B5)	_____ FAC-Neutral Test (D5)
_____ Inundation Visible on Aerial Imagery (B7)	
_____ Water-Stained Leaves (B9)	
_____ Aquatic Fauna (B13)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 6  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Wetland is located at toe of slope.

Wetland is divided by upland access road in between flags W102-3 to W102-4 and W102-7 to W102-4.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W102-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Symplocarpus foetidus</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Impatiens capensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Polygonatum biflorum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. <u>Poa palustris</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	_____ = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	

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

## SOIL

Sampling Point: W102-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 02 Jun, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W103A-DP  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): \_\_\_\_\_  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.731624 Long: -79.059442 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 0 to 8 percent slopes, extremely bouldery (HzB) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W103A-DP

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>0</u>																				
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																				
1. <u>Rubus occidentalis</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>																	
2. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																				
1. <u>Carex crinita</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Solidago rugosa</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	<b>Remarks:</b> (Include photo numbers here or on a separate sheet.) Rubus occidentalis is not listed on the NWPL and is assumed to have an upland indicator status.																
3. <u>Eleocharis acicularis</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>																	
4. <u>Rubus hispidus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>																	
5. <u>Symphotrichum lanceolatum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
6. _____	_____	_____	_____	<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____	<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																
11. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				

## SOIL

Sampling Point: W103A-DP

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 02 Jun, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: W103-DP1  
Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): \_\_\_\_\_  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.731685 Long: -79.059358 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 25 to 60 percent slopes, extremely bouldery (H4) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: W103-DP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Rubus occidentalis</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Carex crinita</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Solidago rugosa</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Eleocharis acicularis</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Rubus hispidus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
5. <u>Symphotrichum lanceolatum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.) Rubus occidentalis is not listed on the NWPL and is assumed to have an upland indicator status.				

## SOIL

Sampling Point: W103-DP1

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP-1  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.793978 Long: -79.034181 Datum: NAD83  
Soil Map Unit Name: Atkins silt loam, 0 to 3 percent slopes, frequently flooded (At) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP1

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																																
1. <u>Alnus glutinosa</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)																																																
2. <u>Juglans nigra</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)																																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)																																																
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
6. _____	_____	_____	_____																																																	
7. _____	_____	_____	_____																																																	
<u>55</u> = Total Cover 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>0</u>																																																
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																																
<u>115</u> = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																																																
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																																																
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Herb Stratum (Plot size: <u>5 feet</u> )</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Solidago rugosa</u></td><td><u>80</u></td><td><u>Y</u></td><td><u>FAC</u></td></tr> <tr><td>2. <u>Securigera varia</u></td><td><u>15</u></td><td><u>N</u></td><td><u>UPL</u></td></tr> <tr><td>3. <u>Rumex crispus</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FAC</u></td></tr> <tr><td>4. <u>Ranunculus acris</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FAC</u></td></tr> <tr><td>5. <u>Lysimachia nummularia</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACW</u></td></tr> <tr><td>6. <u>Galium asprellum</u></td><td><u>5</u></td><td><u>N</u></td><td><u>OBL</u></td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>					Herb Stratum (Plot size: <u>5 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Solidago rugosa</u>	<u>80</u>	<u>Y</u>	<u>FAC</u>	2. <u>Securigera varia</u>	<u>15</u>	<u>N</u>	<u>UPL</u>	3. <u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	4. <u>Ranunculus acris</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	5. <u>Lysimachia nummularia</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	6. <u>Galium asprellum</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	7. _____	_____	_____	_____	8. _____	_____	_____	_____	9. _____	_____	_____	_____	10. _____	_____	_____	_____	11. _____	_____	_____	_____
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Woody Vine Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status																																																	
1. _____	_____	_____	_____																																																	
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
Remarks: (Include photo numbers here or on a separate sheet.) Securigera varia is not listed on the NWPL and is assumed to have an upland indicator status.																																																				

## SOIL

Sampling Point: UP1

[illegible]



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 26 May, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP-2  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.779549 Long: -79.029786 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (HbD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

#### Remarks:

Data point was taken along a downslope where a curved road is causing drainage patterns.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP-2

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Acer saccharum</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33%</u> (A/B)														
2. <u>Fraxinus pennsylvanica</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Quercus rubra</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>70</u> = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Rosa multiflora</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</u>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Acer saccharum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
3. <u>Elaeagnus umbellata</u>	<u>10</u>	<u>N</u>	<u>UPL</u>															
4. <u>Carya ovata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>70</u> = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Solidago altissima</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. <u>Impatiens capensis</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
4. <u>Poa palustris</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)  Elaeagnus umbellata is not listed on the NWPL and is assumed to have an upland indicator status.																		

## SOIL

Sampling Point: UP-2

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 02 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP-3  
Investigator(s): C. Sullivan, B. Marks Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Flat Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.781288 Long: -79.030884 Datum: NAD83  
Soil Map Unit Name: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (HbD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 15  
Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): surface  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

Hydrology is provided by a grey/waste water pipe running from a house into the residential yard where the data point was taken.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP3

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Fraxinus americana</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20%</u> (A/B)														
2. <u>Quercus rubra</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Acer saccharum</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
4. <u>Robinia pseudoacacia</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>85</u> = Total Cover 50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Cornus amomum</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</u>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Rosa multiflora</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Prunus virginiana</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. <u>Quercus rubra</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Impatiens capensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. <u>Glechoma hederacea</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Galium asprellum</u>	<u>5</u>	<u>N</u>	<u>OBL</u>															
4. <u>Dryopteris marginalis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. <u>Galium aparine</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Vitis aestivalis</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>														
2. <u>Lonicera japonica</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

## SOIL

Sampling Point: **UP3****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	2.5Y 2.5/1	100					Lo	
2-8	5Y 6/2	90	5YR 4/6	10			CI Lo	Oxidized root channels
8-10	5Y 2.5/2	100					Sa	
10-18	5Y 5/2	100					SaCl	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 23 Jun, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP4  
Investigator(s): A. Hovanec, C. Houlihan, C. Sullivan Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.751695 Long: -79.042839 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP4

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Quercus rubra</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>10</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)														
2. <u>Betula lenta</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Hamamelis virginiana</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Sassafras albidum</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Acer rubrum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
4. <u>Betula lenta</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
5. <u>Vaccinium corymbosum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Euthamia graminifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. <u>Carex crinita</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>															
3. <u>Viola cucullata</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>															
4. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
5. <u>Dryopteris marginalis</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
6. <u>Rubus hispidus</u>	<u>3</u>	<u>N</u>	<u>FACW</u>															
7. <u>Lysimachia quadrifolia</u>	<u>2</u>	<u>N</u>	<u>FACU</u>															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Smilax rotundifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. <u>Parthenocissus quinquefolia</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		



## SOIL

Sampling Point: UP4

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 13 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP5  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.745170 Long: -79.046246 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

#### Remarks:

Data point was taken in an old road bed at the head of Stream S-32. So wetland vegetation was present but there was no evidence of wetland hydrology or hydric soils.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ Surface Soil Cracks (B6)
____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
____ Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)		____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)		____ Shallow Aquitard (D3)
____ Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP5

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57.14%</u> (A/B)														
2. <u>Nyssa sylvatica</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Fagus grandifolia</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Nyssa sylvatica</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Magnolia acuminata</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Betula lenta</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. <u>Quercus alba</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
5. <u>Hamamelis virginiana</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Rubus hispidus</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Symphytotrichum lateriflorum</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Thelypteris palustris</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
4. <u>Dennstaedtia punctilobula</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>100</u> = Total Cover 50% of total cover: <u>50</u> 20% of total cover: <u>20</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____														

## SOIL

Sampling Point: UP5

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 14 Jul, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP6  
Investigator(s): C. Sullivan, N. Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 0-3  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.743857 Long: -79.047876 Datum: NAD83  
Soil Map Unit Name: Cookport loam, 8 to 25 percent slopes, very stony (CpD) NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Drainage patterns present. Ephemeral stream channel ends near the data point.		

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP6

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Magnolia acuminata</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)														
2. <u>Betula lenta</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Acer rubrum</u>	<u>20</u>	<u>N</u>	<u>FAC</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>110</u> = Total Cover 50% of total cover: <u>55</u> 20% of total cover: <u>22</u>				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Magnolia acuminata</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Acer rubrum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
4. <u>Hamamelis virginiana</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. <u>Quercus rubra</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Osmundastrum cinnamomeum</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Lycopus americanus</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>															
3. <u>Dryopteris filix-mas</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>															
4. <u>Rubus hispidus</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
5. <u>Viola cucullata</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																		
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																		

Remarks: (Include photo numbers here or on a separate sheet.)  
 Dryopteris filix-mas is not listed on the NWPL and is assumed to have an upland indicator

## SOIL

Sampling Point: **UP6****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 3/2	100					Lo	
1-3	10Y 4/1	50	5Y 6/1	40			Cl	
			10YR 4/6	10				
3-18	N 6/1	60	10YR 6/8	40			SaClLo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☒ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 ☒ No ☐**Remarks:**

Old tire ruts through area; soils seem disturbed and contain decaying quartz/sand in a clay soils.

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 22 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP-10  
Investigator(s): A. Hovanec, C. Sullivan, N. Davis, S. Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.744709 Long: 39.744709 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 25 to 65 percent slopes (RgF) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP-10

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>Magnolia acuminata</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>42.86%</u> (A/B)														
2. <u>Ulmus americana</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Acer saccharum</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>65</u> = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																		
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>																		
1. <u>Acer saccharum</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																		
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>																		
1. <u>Solidago odora</u>	<u>80</u>	<u>Y</u>	<u>UPL</u>															
2. <u>Impatiens capensis</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Rubus allegheniensis</u>	<u>15</u>	<u>N</u>	<u>FACU</u>															
4. <u>Rosa multiflora</u>	<u>15</u>	<u>N</u>	<u>FACU</u>															
5. <u>Galium asprellum</u>	<u>10</u>	<u>N</u>	<u>OBL</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>160</u> = Total Cover 50% of total cover: <u>80</u> 20% of total cover: <u>32</u>																		
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) Solidago odora is not included on the Army Corps of Engineers NWPL list and is assumed to have an upland indicator status.				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>														

## SOIL

Sampling Point: UP-10

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP-11  
Investigator(s): A.Hovanec, S.Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.729519 Long: -79.076980 Datum: NAD83  
Soil Map Unit Name: Udorthents, mine spoil, 25 to 70 percent slopes (UDF) NWI classification: None

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

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

#### Remarks:

Data point was taken in a large valley adjacent to Stream S53. Area displayed wetland hydrology and hydrophytic vegetation, but not hydric soils.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☒ No ☐

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP-11

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer saccharum</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
2. <u>Populus balsamifera</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Magnolia acuminata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				
1. <u>Crataegus sp.</u>	<u>10</u>	<u>N</u>	<u>NS</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>				
1. <u>Urtica dioica</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Persicaria maculosa</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Impatiens capensis</u>	<u>15</u>	<u>N</u>	<u>FACW</u>	
4. <u>Euthamia graminifolia</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
5. <u>Verbena urticifolia</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
6. <u>Amphicarpaea bracteata</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
7. <u>Symphytotrichum novae-angliae</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
8. <u>Geum canadense</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>115</u> = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>				
1. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

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

## SOIL

Sampling Point: UP-11

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP-12  
Investigator(s): A.Hovanec, S.Comerford Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.729519 Long: -79.077944 Datum: NAD83  
Soil Map Unit Name: Rayne-Gilpin channery silt loams, 15 to 25 percent slopes (RgD) NWI classification: None  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:

Data point was taken on a floodplain bench.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP-12

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. <u>Acer saccharum</u>	<u>45</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																
2. <u>Quercus rubra</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)																
3. <u>Crataegus sp.</u>	<u>10</u>	<u>N</u>	<u>NS</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>0</u>																				
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____	_____	_____	_____																	
<u>85</u> = Total Cover 50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.																
<u>  </u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )																				
1. <u>Pilea pumila</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Impatiens capensis</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>																	
3. <u>Packera aurea</u>	<u>20</u>	<u>N</u>	<u>FACW</u>																	
4. <u>Symphyotrichum lateriflorum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>																	
5. <u>Echinochloa crus-galli</u>	<u>10</u>	<u>N</u>	<u>FAC</u>																	
6. <u>Persicaria pensylvanica</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
7. <u>Persicaria virginiana</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>115</u> = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>																
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)																
<u>  </u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				

## SOIL

Sampling Point: **UP-12****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	7.5YR 3/2	100					SiLo	
1-5	7.5YR 3/1	100					SiLo	
5-11	7.5YR 5/4	80	7.5YR 3/2	20			SiCl	
11-18	10YR 5/6	100					ClLo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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 \_\_\_\_\_ No ☒

Remarks:



## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 24 Aug, 2022  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP-13  
Investigator(s): A.Hovanec, N.Davis Section, Township, Range: NA  
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0-5  
Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.729145 Long: -79.075525 Datum: NAD83  
Soil Map Unit Name: Cavode very stony silt loam, 0 to 8 percent slopes (CbB) NWI classification: PUBHx  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

#### Remarks:

Data point was taken on an elevated stream bank between Stream S39 and Wetland W62. The area is too high above the stream channel to receive floodflow regularly.

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

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

Wetland Hydrology Present? Yes ☒ No ☐

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

#### Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP-13

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer saccharum</u>	45	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. <u>Betula alleghaniensis</u>	30	Y	FAC	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)
4. _____				
5. _____				
6. _____				
7. _____				
<u>75</u> = Total Cover 50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>0</u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Fagus grandifolia</u>	5	Y	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Microstegium vimineum</u>	15	Y	FAC	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
2. <u>Parathelypteris noveboracensis</u>	10	Y	FAC	
3. <u>Medeola virginiana</u>	5	N	FAC	
4. <u>Symphyotrichum lateriflorum</u>	5	N	FACW	
5. <u>Polygonatum biflorum</u>	5	N	FACU	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: UP-13

[illegible]

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 16 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UP-15  
Investigator(s): C. Frey, N. Davis Section, Township, Range: NA

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

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.791857 Long: -79.032876 Datum: NAD83

Soil Map Unit Name: Wharton silt loam, 3 to 8 percent slopes (WhB) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

#### Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): <1"

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UP-15

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>44</u> x 4 = <u>176</u> UPL species <u>30</u> x 5 = <u>150</u> Column Totals: <u>94</u> (A) <u>381</u> (B)  Prevalence Index = B/A = <u>4.1</u>
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 feet</u> )				
1. <u>Cornus racemosa</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Elaeagnus umbellata</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Cornus amomum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
4. <u>Pinus resinosa</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover: <u>16</u> 20% of total cover: <u>6.4</u>				
<b>Herb Stratum</b> (Plot size: <u>5 feet</u> )				
1. <u>Poa sp.</u>	<u>35</u>	<u>Y</u>	<u>-</u>	
2. <u>Poa pratensis</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Centaurea nigra</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Solidago sp.</u>	<u>15</u>	<u>N</u>	<u>-</u>	
5. <u>Dactylis glomerata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u>Anthoxanthum odoratum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
7. <u>Galium mollugo</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
8. <u>Taraxacum officinale</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>56</u> 20% of total cover: <u>22.4</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 feet</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>				
Remarks: (Include photo numbers here or on a separate sheet.)  The Poa species and Solidago species were not able to be identified and were not included in the hydrophytic vegetation indicator tests.				

## SOIL

Sampling Point: UP-15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 4/2	100					SiCl	
7-10	5YR 5/8	80	10YR 6/2	10	D	M	Clay	Coal fragments
			10YR 4/2	10	D	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> <b>(MLRA 147, 148)</b>			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> <b>(MLRA 136, 147)</b>			
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N,</b>	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N,</b>				
<input type="checkbox"/> <b>MLRA 147, 148)</b>	<input type="checkbox"/> <b>MLRA 136)</b>				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122)</b>				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148)</b>				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147)</b>				

**Restrictive Layer (if observed):**  
Type: Gravel  
Depth (inches): 10"

Hydric Soil Present? Yes No ✓

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 Meyersdale City/County: Meyersdale/Somerset Co. Sampling Date: 30 May, 2023  
Applicant/Owner: PennDOT District 9-0 State: PA Sampling Point: UPL-17  
Investigator(s): N. Davis, C. Sullivan Section, Township, Range: NA

Landform (hillslope, terrace, etc.): Hill-slope Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 39.731145 Long: -79.059824 Datum: NAD83

Soil Map Unit Name: Cookport very stony loam, 3 to 8 percent slopes (CpB) NWI classification: \_\_\_\_\_

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

Remarks:

Deep tire ruts present throughout area.

**VEGETATION (Four Strata) – Use scientific names of plants.**

 Sampling Point: UPL-17

Tree Stratum (Plot size: <u>30 feet</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: _____ (A) <u>0</u> (B)  Prevalence Index = B/A = <u>0</u>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum (Plot size: <u>15 feet</u> )</b>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
<b>Herb Stratum (Plot size: <u>5 feet</u> )</b>				
1. <u>Carex stricta</u>	<u>70</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Viola cucullata</u>	<u>20</u>	<u>N</u>	<u>FACW</u>	
3. <u>Osmundastrum cinnamomeum</u>	<u>20</u>	<u>N</u>	<u>FACW</u>	
4. <u>Rubus occidentalis</u>	<u>10</u>	<u>N</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
5. <u>Rubus hispidus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
6. <u>Solidago patula</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
7. <u>Lycopus americanus</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
8. <u>Maianthemum racemosum</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
9. _____	_____	_____	_____	<b>Remarks:</b> (Include photo numbers here or on a separate sheet.) Rubus occidentalis is not listed on the NWPL and is assumed to have an upland indicator status, it was not included in the hydrophytic vegetation indicator tests.
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>69</u> 20% of total cover: <u>27.6</u>				
<b>Woody Vine Stratum (Plot size: <u>30 feet</u> )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				



SOIL

Sampling Point: UPL-17

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/1	50	5YR 3/4	50	C	M	Lo	Organics
3-6	10YR 3/1	100					CI Lo	
6-14	10YR 6/3	85	10YR 4/4	5	C	M		
			10YR 6/1	10	D	M	CI	
14-18	10YR 6/1	80	7.5YR 5/6	20	C	M	CI	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (**LRR N**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- ☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- ☐ Umbric Surface (F13) (**MLRA 136, 122**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
- ☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)
- ☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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 \_\_\_\_\_ No ☒

**Remarks:**

Clay soils are super dry and hard.

***Maryland***

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 3 DU-E/ DU-E Shift City/County: Garrett County Sampling Date: 8/1/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WL004-WF  
 Investigator(s): AK/MH Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <1%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.701019 Long: -79.095442 Datum: NAD83  
 Soil Map Unit Name: Wharton silt loam, 8-15% slopes (WhC2) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, emergent, persistent, saturated (PEM1B) wetland. There is approximately 1/2" of surface water present over 10% of the plot. The sample plot located adjacent to WUS WL006.					

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>&lt;0.5"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks: The sample plot satisfies the wetland hydrology criterion. There is approximately 1/2" of surface water present over 10% of the plot.		

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WL004-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Betula lenta</u>	<u>10</u>	<u>FACU</u>	<u>Y</u>
2. <u>Tilia americana</u>	<u>5</u>	<u>FACU</u>	<u>Y</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
<u>15</u> = Total Cover			
50% of total cover: <u>7.5</u>		20% of total cover: <u>3</u>	

Sapling Stratum (Plot size: <u>15ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
<u>0</u> = Total Cover			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>	

Shrub Stratum (Plot size: <u>15ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
<u>0</u> = Total Cover			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>	

Herb Stratum (Plot size: <u>5ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Impatiens capensis</u>	<u>20</u>	<u>FACW</u>	<u>Y</u>
2. <u>Packera aurea</u>	<u>5</u>	<u>FACW</u>	<u>N</u>
3. <u>Parathelypteris noveboracensis</u>	<u>5</u>	<u>FAC</u>	<u>N</u>
4. <u>Symphyotrichum puniceum</u>	<u>5</u>	<u>OBL</u>	<u>N</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
<u>35</u> = Total Cover			
50% of total cover: <u>17.5</u>		20% of total cover: <u>7</u>	

Woody Vine Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
<u>0</u> = Total Cover			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>	

**Dominance Test worksheet:**

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

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

 Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>50</u> (A)	<u>130</u> (B)

 Prevalence Index = B/A = 2.6
**Hydrophytic Vegetation Indicators:**

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

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

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes



No



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

The sample plot satisfies the hydrophytic vegetation criterion.

## SOIL

Sampling Point: WL004-V

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 3 DU-E/ DU-E Shift City/County: Garrett County Sampling Date: 8/1/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WL004-WI  
 Investigator(s): AK/MH Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.699565 Long: -79.096621 Datum: NAD83  
 Soil Map Unit Name: Wharton silt loam, 8-15% slopes (WhC2) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, emergent, persistent, saturated (PEM1B) wetland.		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: The sample plot satisfies the wetland hydrology criterion.		

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WL004-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		
<b>Sapling Stratum</b> (Plot size: <u>15ft radius</u> )				
1. <u>Salix sericea</u>	30	OBL	Y	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>15</u>		20% of total cover: <u>6</u>		
<b>Shrub Stratum</b> (Plot size: <u>15ft radius</u> )				
1. <u>Typha angustifolia</u>	50	OBL	Y	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>25</u>		20% of total cover: <u>10</u>		
<b>Herb Stratum</b> (Plot size: <u>5ft radius</u> )				
1. <u>Eupatorium perfoliatum</u>	20	FACW	Y	
2. <u>Onoclea sensibilis</u>	20	FACW	Y	
3. <u>Impatiens capensis</u>	15	FACW	N	
4. <u>Solidago patula</u>	10	OBL	N	
5. <u>Juncus effusus</u>	10	FACW	N	
6. <u>Equisetum arvense</u>	5	FAC	N	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)  
  
 Total Number of Dominant Species Across All Strata: 4 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  

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

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**  
  
**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  
  
**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  
  
**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  
  
**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  
  
**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)  
 The sample plot satisfies the hydrophytic vegetation criterion.

SOIL

Sampling Point: WL004-V

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

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-4	10YR 2/1	75	5YR 4/6	20	C	M/PL	
			2.5Y 4/1	5	C	M	
4-12	2.5Y 4/1	60	10YR 5/8	20	C	PL	
			2.5Y 5/3	10	C	M	
			2.5Y 6/8	10	C	M/PL	
12+	--	--	--	--	--	--	Refusal

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (**LRR N**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- ☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- ☐ Umbric Surface (F13) (**MLRA 136, 122**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
- ☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 2 cm Muck (A10) (**MLRA 147**)
- ☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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: Liquid soils  
Depth (inches): 12+

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sample plot satisfies the hydric soil criterion.



# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 2 E / Segment 2 DU City/County: Garrett County Sampling Date: 8/3/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WL011-WF  
 Investigator(s): AK/MH Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.716501 Long: -79.084795 Datum: NAD83  
 Soil Map Unit Name: Stony land, steep (SrF) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, emergent, persistent, saturated (PEM1B) wetland. The wetland receives hydrology from WUS WL012 and a stormwater pond outfall, WUS WL013. A dirt pathway and ATV tracks are present within the wetland.					

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>&lt;1"</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: The sample plot satisfies the wetland hydrology criterion.			

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WL011-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		
<b>Sapling Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		
<b>Shrub Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		
<b>Herb Stratum</b> (Plot size: <u>5ft radius</u> )				
1. <u>Solidago patula</u>	<u>20</u>	<u>OBL</u>	<u>Y</u>	
2. <u>Lycopus uniflorus</u>	<u>20</u>	<u>OBL</u>	<u>Y</u>	
3. <u>Packera aurea</u>	<u>10</u>	<u>FACW</u>	<u>N</u>	
4. <u>Impatiens capensis</u>	<u>10</u>	<u>FACW</u>	<u>N</u>	
5. <u>Microstegium vimineum</u>	<u>5</u>	<u>FAC</u>	<u>N</u>	
6. <u>Galium species</u>	<u>5</u>	<u>NI</u>	<u>N</u>	
7. <u>Carex species</u>	<u>5</u>	<u>NI</u>	<u>N</u>	
8. <u>Leersia oryzoides</u>	<u>20</u>	<u>OBL</u>	<u>Y</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>47.5</u>		20% of total cover: <u>19</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>		

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across All Strata: 3 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  

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

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**  
**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  
**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  
**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  
**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  
**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)  
 The sample plot satisfies the hydrophytic vegetation criterion.

SOIL

Sampling Point: WL011-V

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

Depth (inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-2	10YR 4/2	75	10YR 5/8	25	C	M/PL	sicl	
2-15	10YR 4/1	60	10YR 5/8	25	C	M/PL	cl	
			2.5YR 4/8	5	C	M/PL		
			10YR 2/1	5	D	M		
			10YR 6/4	5	C	M		
15+	--	--	--	--	--	--	Refusal	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147, 148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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: gravel  
Depth (inches): 15+

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sample plot satisfies the hydric soil criterion.

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 2 E City/County: Garrett County Sampling Date: 8/3/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WP020-W  
 Investigator(s): AK/MH Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): bench Local relief (concave, convex, none): none Slope (%): <1%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.720148 Long: -79.082358 Datum: NAD83  
 Soil Map Unit Name: Cookport and Ernest very stony silt loams, 0-8% slopes (CuB) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, emergent, persistent, saturated (PEM1B) wetland. This wetland bench is located on the right bank of WUS WL016. Approximately 1/2" of surface water is present over 20% of the sample plot.					

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>&lt;0.5"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks: The sample plot satisfies the wetland hydrology criterion. Approximately 1/2" of surface water is present over 20% of the sample plot.			

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WP020-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<u>0</u> = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<u>0</u> = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Shrub Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<u>0</u> = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum</b> (Plot size: <u>5ft radius</u> )				
1. <u>Rosa multiflora</u>	<u>20</u>	<u>FACU</u>	<u>Y</u>	
2. <u>Impatiens capensis</u>	<u>10</u>	<u>FACW</u>	<u>N</u>	
3. <u>Leersia oryzoides</u>	<u>40</u>	<u>OBL</u>	<u>Y</u>	
4. <u>Carex gynandra</u>	<u>10</u>	<u>OBL</u>	<u>N</u>	
5. <u>Packera aurea</u>	<u>10</u>	<u>FACW</u>	<u>N</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>90</u> = Total Cover				
50% of total cover: <u>45</u> 20% of total cover: <u>18</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across All Strata: 2 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>170</u> (B)

Prevalence Index = B/A = 1.88

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☐ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

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

**Definitions of Five Vegetation Strata:**  

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?**    Yes ☒    No ☐

Remarks: (Include photo numbers here or on a separate sheet.)  
 The sample plot satisfies the hydrophytic vegetation criterion.

## SOIL

Sampling Point: WP020-V

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 2 E / DU City/County: Garrett County Sampling Date: 8/3/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WP022-W  
 Investigator(s): AK/MH Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): bench Local relief (concave, convex, none): none Slope (%): <1%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.720234 Long: -79.082504 Datum: NAD83  
 Soil Map Unit Name: Dekalb and Gilpin very stony loams, 15-25% slopes (DgD) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, emergent, persistent, saturated (PEM1B) wetland. Wetland WP022 is a wetland bench located along the banks of WUS WL014.			

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks: The sample plot satisfies the wetland hydrology criterion.			

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WP022-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling Stratum (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Shrub Stratum (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: <u>5ft radius</u> )				
1. <u>Leersia oryzoides</u>	<u>20</u>	<u>OBL</u>	<u>Y</u>	
2. <u>Laportea canadensis</u>	<u>5</u>	<u>FAC</u>	<u>N</u>	
3. <u>Packera aurea</u>	<u>5</u>	<u>FACW</u>	<u>N</u>	
4. <u>Geum canadense</u>	<u>5</u>	<u>FACU</u>	<u>N</u>	
5. <u>Carex stricta</u>	<u>10</u>	<u>OBL</u>	<u>Y</u>	
6. <u>Impatiens capensis</u>	<u>5</u>	<u>FACW</u>	<u>N</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				
Woody Vine Stratum (Plot size: <u>30ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across All Strata: 2 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by:  
 OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
 FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_  
 FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_  
 FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
 UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
 Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)  
 Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**  
**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  
**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  
**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  
**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  
**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)  
 The sample plot satisfies the hydrophytic vegetation criterion.



## SOIL

Sampling Point: WP022-V

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

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) **(LRR N)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☒ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbritic Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
- ☐ Coast Prairie Redox (A16)  
**(MLRA 147, 148)**
- ☐ Piedmont Floodplain Soils (F19)  
**(MLRA 136, 147)**
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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: Rock

Depth (inches): 16+

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sample plot satisfies the hydric soil criterion.

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 2 DU City/County: Garrett County Sampling Date: 8/3/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WP024-W  
 Investigator(s): AK/MH Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.720425 Long: -79.08221 Datum: NAD83  
 Soil Map Unit Name: Dekalb and Gilpin very stony loams, 5-25% slopes (DgD) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, emergent, persistent, saturated (PEM1B) wetland. Wetland WP024 is located on the right bank of WUS WL014 and east of Wetlands WP022 and WP023.					

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: The sample plot satisfies the wetland hydrology criterion.			

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WP024-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ 0 = Total Cover				
50% of total cover: _____ 0    20% of total cover: _____ 0				
<b>Sapling Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ 0 = Total Cover				
50% of total cover: _____ 0    20% of total cover: _____ 0				
<b>Shrub Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ 0 = Total Cover				
50% of total cover: _____ 0    20% of total cover: _____ 0				
<b>Herb Stratum</b> (Plot size: <u>5ft radius</u> )				
1. <u>Leersia oryzoides</u>	10	OBL	N	
2. <u>Rosa multiflora</u>	15	FACU	N	
3. <u>Packera aurea</u>	10	FACW	N	
4. <u>Onoclea sensibilis</u>	20	FACW	Y	
5. <u>Impatiens capensis</u>	5	FACW	N	
6. <u>Lycopus virginicus</u>	20	OBL	Y	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ 80 = Total Cover				
50% of total cover: _____ 40    20% of total cover: _____ 16				
<b>Woody Vine Stratum</b> (Plot size: <u>30ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ 0 = Total Cover				
50% of total cover: _____ 0    20% of total cover: _____ 0				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across All Strata: 2 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  

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

 Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**  
**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  
**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  
**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  
**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  
**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?**    Yes ☒    No ☐

Remarks: (Include photo numbers here or on a separate sheet.)  
 The sample plot satisfies the hydrophytic vegetation criterion.

SOIL

Sampling Point: WP024-V

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

Depth (inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-10	5YR 4/1	65	10YR 5/8	25	C	M/PL	cl	
			10YR 6/6	10	C	M/PL		
10-17	10YR 5/6	65	5Y 4/1	30	D	M	cl	
			10YR 5/8	5	C	M/PL		
17+	--	--	--	--	--	--	Refusal	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147, 148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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: Resistance to gravel  
Depth (inches): 17+

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sample plot satisfies the hydric soil criterion.

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 2 E/DU City/County: Garrett County Sampling Date: 8/3/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WP025-W  
 Investigator(s): AK/MH Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): bench Local relief (concave, convex, none): none Slope (%): <1%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.719867 Long: -79.082598 Datum: NAD83  
 Soil Map Unit Name: Dekalb and Gilpin very stony loams, 15-25% slopes (DgD) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, emergent, persistent, saturated (PEM1B) wetland. This is a set of two bench wetlands located along WUS WL014.					

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks: The sample plot satisfies the wetland hydrology criterion.			

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WP025-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Shrub Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum</b> (Plot size: <u>5ft radius</u> )				
1. <u>Impatiens capensis</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Packera aurea</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
3. <u>Leersia oryzoides</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Carex stricta</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	
5. <u>Carex gynandra</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
6. <u>Lycopus virginicus</u>	<u>3</u>	<u>N</u>	<u>OBL</u>	
7. <u>Laportea canadensis</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across All Strata: 3 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  

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

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**  
**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  
**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  
**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  
**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  
**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)  
 The sample plot satisfies the hydrophytic vegetation criterion.

## SOIL

Sampling Point: WP025-V

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 3 DU-E/ DU-E Shift City/County: Garrett County Sampling Date: 10/27/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WP026-W  
 Investigator(s): AK/JP Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): seep Local relief (concave, convex, none): none Slope (%): <1%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.707988 Long: -79.092392 Datum: NAD83  
 Soil Map Unit Name: Cavode silt loam, 0-8% slopes (CoB) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, emergent, persistent, saturated (PEM1B) wetland. The wetland originates as a seep at edge of agricultural field and follows within a maintained access road that goes through the adjacent riparian forest.					

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: The sample plot satisfies the wetland hydrology criterion.			



**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WP026-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Shrub Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum</b> (Plot size: <u>5ft radius</u> )				
1. <u>Persicaria sagittata</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
2. <u>Persicaria pensylvanica</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
3. <u>Cinna arundinacea</u>	<u>8</u>	<u>N</u>	<u>FACW</u>	
4. <u>Juncus tenuis</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
5. <u>Juncus effusus</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
6. <u>Carex lurida</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	
7. <u>Scirpus atrovirens</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				

**Remarks:** (Include photo numbers here or on a separate sheet.)  
 The sample plot satisfies the hydrophytic vegetation criterion.

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across All Strata: 2 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  

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

 Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**  
**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  
**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  
**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  
**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  
**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes ☒ No ☐

## SOIL

Sampling Point: WP026-V

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-12	2.5YR 4/2	70	2.5YR 4/8	10	C	M/PL	sicl
			7.5YR 5/8	10	C	M/PL	
			5YR 6/3	10	C	M	
12+	--	--	--	--	--	--	Refusal

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

**Hydric Soil Indicators:**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☒ 2 cm Muck (A10) (**LRR N**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)  
  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)

☐ Dark Surface (S7)  
☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)  
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)  
  
☐ Umbric Surface (F13) (**MLRA 136, 122**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)  
☐ Red Parent Material (F21) (**MLRA 127, 147**)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 2 cm Muck (A10) (**MLRA 147**)  
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)  
☐ Very Shallow Dark Surface (TF12)  
☐ 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: Rock

Depth (inches): 12+

Hydric Soil Present?   Yes ☒   No ☐

Remarks: The sample plot satisfies the hydric soil criterion.

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 2 DU /E City/County: Garrett County Sampling Date: 10/27/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WP029-W  
 Investigator(s): AK/JP Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): seep Local relief (concave, convex, none): none Slope (%): 3%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.719516 Long: -79.082591 Datum: NAD83  
 Soil Map Unit Name: Cookport and Ernest very stony silt loams, 0-8% slopes (CuB) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, forested, broad-leaved deciduous, saturated, (PFO1B) wetland. The wetland originates as a rocky seep. This wetland eventually outlets to WUS WL014.			

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks: The sample plot satisfies the wetland hydrology criterion.			

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WP029-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fagus grandifolia</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
<u>30</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				
Sapling Stratum (Plot size: <u>15ft radius</u> )				
1. <u>Acer rubrum</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Nyssa sylvatica</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
3. _____				
4. _____				
5. _____				
6. _____				
<u>10</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Shrub Stratum (Plot size: <u>15ft radius</u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
<u>0</u> = Total Cover				<b>Definitions of Five Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  <b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  <b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  <b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  <b>Woody vine</b> – All woody vines, regardless of height.
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: <u>5ft radius</u> )				
1. <u>Rosa multiflora</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
2. <u>Impatiens capensis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
3. <u>Carex stricta</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Alliaria petiolata</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
5. <u>Dryopteris intermedia</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u>Aster species</u>	<u>5</u>	<u>N</u>	<u>NI</u>	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
<u>82</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
50% of total cover: <u>41</u> 20% of total cover: <u>16.4</u>				
Woody Vine Stratum (Plot size: <u>30ft radius</u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.) The sample plot satisfies the hydrophytic vegetation criterion.				

## SOIL

Sampling Point: WP029-V

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 2 DU /E City/County: Garrett County Sampling Date: 10/27/2022  
Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WP030-W  
Investigator(s): AK/JP Section, Township, Range: Grantsville  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <1%  
Subregion (LRR or MLRA): MLRA 147 Lat: 39.719494 Long: -79.083045 Datum: NAD83  
Soil Map Unit Name: Cookport and Ernest very stony silt loams, 0-8% slopes (CuB) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, forested, broad-leaved deciduous, saturated, (PFO1B) wetland. This wetland originates as a seep.			

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: The sample plot satisfies the wetland hydrology criterion.		

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WP030-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Carpinus caroliniana</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. <u>Betula lenta</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
3. <u>Nyssa sylvatica</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
4. _____				
5. _____				
6. _____				
<u>45</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>				
<b>Sapling Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____				
2. _____				
3. _____				
<u>0</u> = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Shrub Stratum</b> (Plot size: <u>15ft radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum</b> (Plot size: <u>5ft radius</u> )				<b>Definitions of Five Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  <b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  <b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  <b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  <b>Woody vine</b> – All woody vines, regardless of height.
1. <u>Impatiens capensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
2. _____				
3. _____				
4. _____				
5. _____				
<u>5</u> = Total Cover				
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30ft radius</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				

Remarks: (Include photo numbers here or on a separate sheet.)  
 The sample plot satisfies the hydrophytic vegetation criterion. The trees were near wetland edge.

SOIL

Sampling Point: WP030-V

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

Depth (inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-3	5YR 3/2	80	2.5YR 3/6	10	C	M/PL	sicl	
			2.5YR 4/8	10	C	M/PL		
3-19	GLE Y2 2.5/5Pl	55	5YR 3/2	5	D	M	cl	
			5YR 5/8	25	C	M/PL		
			10YR 5/8	5	C	M/PL		
			5Y 4/1	10	D	M		
19-24	5Y 5/2	85	5Y 4/1	10	D	M	cl	
			10YR 5/8	5	D	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☒ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147, 148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ 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: N/A  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sample plot satisfies the hydric soil criterion.



# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 2 DU /E City/County: Garrett County Sampling Date: 5/15/23  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: WP031-WI  
 Investigator(s): AK/OS Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.714852 Long: -79.083986 Datum: NAD83  
 Soil Map Unit Name: Stony land, steep (SrF) NWI classification: PUBHx

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, emergent, persistent, semipermanently flooded, (PEM1F) wetland. The wetland outlets via system WL013.					

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> Aquatic Fauna (B13)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks: The sample plot satisfies the wetland hydrology criterion. The standing water is several feet deep on average.		

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WP031-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Sapling Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Shrub Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum</b> (Plot size: <u>5ft radius</u> )				
1. <u>Lemna minor</u>	<u>78</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Impatiens capensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
3. <u>Persicaria virginiana</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
4. <u>Chrysosplenium americanum</u>	<u>15</u>	<u>N</u>	<u>OBL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				

**Remarks:** (Include photo numbers here or on a separate sheet.)  
 The sample plot satisfies the hydrophytic vegetation criterion.

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across All Strata: 1 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  

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

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**  
**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  
**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  
**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  
**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  
**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes ☒ No ☐

## SOIL

Sampling Point: WP031-V

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 2 E add LOD SWM City/County: Somerset County Sampling Date: 5/15/23  
Applicant/Owner: MD State Highway Administration State: PA Sampling Point: WP032-WI  
Investigator(s): AK/OS Section, Township, Range: Salisbury  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2%  
Subregion (LRR or MLRA): MLRA 147 Lat: 39.72254 Long: -79.08118 Datum: NAD83  
Soil Map Unit Name: Buchanan silt loam, 0-8% slopes, extremely stony (BxB) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: The sample plot satisfies the three mandatory wetland criteria; therefore, this area is classified as a palustrine, emergent, persistent, saturated, (PEM1B) wetland. The wetland outlets via system WL014. The wetland has been rutted by ATVs.		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8in</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: The sample plot satisfies the wetland hydrology criterion. Surface water less than 0.5in covers 15% of the plot.		

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: WP032-WET

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Sapling Stratum (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Shrub Stratum (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: <u>5ft radius</u> )				
1. <u>Juncus effusus</u>	<u>15</u>	<u>N</u>	<u>FACW</u>	
2. <u>Typha angustifolia</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
3. <u>Conoclinium coelestinum</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Viola sororia</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
5. <u>Carex vulpinoidea</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	
6. <u>Impatiens capensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
7. <u>Veronia gigantea</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
Woody Vine Stratum (Plot size: <u>30ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				

**Remarks:** (Include photo numbers here or on a separate sheet.)  
 The sample plot satisfies the hydrophytic vegetation criterion.

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across All Strata: 2 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  

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

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Five Vegetation Strata:**  
**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  
**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  
**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  
**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  
**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?**

Yes ☒
No ☐

## SOIL

Sampling Point: WP032-V

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 3 DU-E/ DU-E Shift City/County: Garrett County Sampling Date: 8/1/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: UPL-1  
 Investigator(s): AK/MH Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): Pond embankment Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.698983 Long: -79.096977 Datum: NAD83  
 Soil Map Unit Name: Ernest silt loam, 3-8% slopes (ErB) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: The sample plot does not satisfy the three mandatory wetland criteria; therefore, this area is classified as upland. This area has been disturbed due to the construction of stormwater management facilities.					

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: The sample plot does not satisfy the wetland hydrology criterion.			

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: UPL-1

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Shrub Stratum</b> (Plot size: <u>15ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Herb Stratum</b> (Plot size: <u>5ft radius</u> )				
1. <u>Solidago altissima</u>	<u>10</u>	<u>FACU</u>	<u>N</u>	
2. <u>Trifolium repens</u>	<u>25</u>	<u>FACU</u>	<u>Y</u>	
3. <u>Daucus carota</u>	<u>20</u>	<u>UPL</u>	<u>Y</u>	
4. <u>Lamium purpureum</u>	<u>10</u>	<u>NI</u>	<u>N</u>	
5. <u>Lotus tenuis</u>	<u>5</u>	<u>FACU</u>	<u>N</u>	
6. <u>Leucanthemum vulgare</u>	<u>10</u>	<u>UPL</u>	<u>N</u>	
7. <u>Rudbeckia hirta</u>	<u>10</u>	<u>FACU</u>	<u>N</u>	
8. <u>Cirsium vulgare</u>	<u>5</u>	<u>FACU</u>	<u>N</u>	
9. <u>Festuca species</u>	<u>5</u>	<u>NI</u>	<u>N</u>	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30ft radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across All Strata: 2 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>55</u>	x 4 = <u>220</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>85</u> (A)	<u>370</u> (B)

Prevalence Index = B/A = 4.35

**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☐ 2 - Dominance Test is >50%  
☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  

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

**Definitions of Five Vegetation Strata:**  

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?** Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)  
 The sample plot does not satisfy the hydrophytic vegetation criterion.



## SOIL

Sampling Point: UPL-1

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 3 DU-E/ DU-E Shift City/County: Garrett County Sampling Date: 8/2/2022  
Applicant/Owner: MD State Highway Administration State: MD Sampling Point: UPL-2  
Investigator(s): AK/MH Section, Township, Range: Grantsville  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2%  
Subregion (LRR or MLRA): MLRA 147 Lat: 39.708193 Long: -79.090146 Datum: NAD83  
Soil Map Unit Name: Wharton silt loam, 3-8% slopes (WhB2) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: The sample plot does not satisfy the three mandatory wetland criteria; therefore, this area is classified as upland.					

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: The sample plot does not satisfy the wetland hydrology criterion.		

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: UPL-2

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Acer rubrum</u>	<u>20</u>	<u>FAC</u>	<u>Y</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
<u>20</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>315</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.5</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>90</u> (A)	<u>315</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>15</u>	x 2 = <u>30</u>																	
FAC species <u>20</u>	x 3 = <u>60</u>																	
FACU species <u>50</u>	x 4 = <u>200</u>																	
UPL species <u>5</u>	x 5 = <u>25</u>																	
Column Totals: <u>90</u> (A)	<u>315</u> (B)																	
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																		
<b>Sapling Stratum</b> (Plot size: <u>15ft radius</u> )																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
<u>0</u> = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
<b>Shrub Stratum</b> (Plot size: <u>15ft radius</u> )																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
<u>0</u> = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
<b>Herb Stratum</b> (Plot size: <u>5ft radius</u> )																		
1. <u>Helianthus divaricatus</u>	<u>10</u>	<u>NI</u>	<u>N</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Anthriscus sylvestris</u>	<u>10</u>	<u>NI</u>	<u>N</u>															
3. <u>Daucus carota</u>	<u>5</u>	<u>UPL</u>	<u>N</u>															
4. <u>Persicaria pensylvanica</u>	<u>5</u>	<u>FACW</u>	<u>N</u>															
5. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>FACU</u>	<u>N</u>															
6. <u>Trifolium repens</u>	<u>20</u>	<u>FACU</u>	<u>Y</u>															
7. <u>Clinopodium vulgare</u>	<u>10</u>	<u>NI</u>	<u>N</u>															
8. <u>Impatiens capensis</u>	<u>10</u>	<u>FACW</u>	<u>N</u>															
9. <u>Taraxacum officinale</u>	<u>10</u>	<u>FACU</u>	<u>N</u>															
10. <u>Solidago altissima</u>	<u>10</u>	<u>FACU</u>	<u>N</u>															
11. <u>Plantago major</u>	<u>5</u>	<u>FACU</u>	<u>N</u>															
<u>100</u> = Total Cover																		
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>																		
<b>Woody Vine Stratum</b> (Plot size: <u>30ft radius</u> )																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
<u>0</u> = Total Cover																		
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) The sample plot does not satisfy the hydrophytic vegetation criterion.																		

## SOIL

Sampling Point: UPL-2

[illegible]

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: US 219 - Segment 2 DU / Segment 2 E City/County: Garrett County Sampling Date: 8/3/2022  
 Applicant/Owner: MD State Highway Administration State: MD Sampling Point: UPL-3  
 Investigator(s): AK/MH Section, Township, Range: Grantsville  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2%  
 Subregion (LRR or MLRA): MLRA 147 Lat: 39.720088 Long: -79.082186 Datum: NAD83  
 Soil Map Unit Name: Dekalb and Gilpin very stony loams, 15-25% slopes (DgD) NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: The sample plot does not satisfy the three mandatory wetland criteria; therefore, this area is classified as upland. The sample plot is located in upland riparian forest and is adjacent to a gravel driveway and WUS WL014.					

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks: The sample plot does not satisfy the wetland hydrology criterion.			

**VEGETATION (Five Strata) – Use scientific names of plants.**

 Sampling Point: UPL-3

Tree Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Acer rubrum</u>	<u>10</u>	<u>FAC</u>	<u>Y</u>
2. <u>Prunus serotina</u>	<u>5</u>	<u>FACU</u>	<u>N</u>
3. <u>Tilia americana</u>	<u>5</u>	<u>FACU</u>	<u>N</u>
4. <u>Ulmus rubra</u>	<u>5</u>	<u>FAC</u>	<u>N</u>
5. <u>Betula lenta</u>	<u>5</u>	<u>FACU</u>	<u>N</u>
6. _____	_____	_____	_____
<u>30</u> = Total Cover			
50% of total cover: <u>15</u>		20% of total cover: <u>6</u>	

Sapling Stratum (Plot size: <u>15ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Betula lenta</u>	<u>10</u>	<u>FACU</u>	<u>Y</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
<u>10</u> = Total Cover			
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>	

Shrub Stratum (Plot size: <u>15ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
<u>0</u> = Total Cover			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>	

Herb Stratum (Plot size: <u>5ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Toxicodendron radicans</u>	<u>2</u>	<u>FAC</u>	<u>N</u>
2. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>FACU</u>	<u>Y</u>
3. <u>Alliaria petiolata</u>	<u>2</u>	<u>FACU</u>	<u>N</u>
4. <u>Parathelypteris noveboracensis</u>	<u>5</u>	<u>FAC</u>	<u>Y</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
<u>14</u> = Total Cover			
50% of total cover: <u>7</u>		20% of total cover: <u>2.8</u>	

Woody Vine Stratum (Plot size: <u>30ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
<u>0</u> = Total Cover			
50% of total cover: <u>0</u>		20% of total cover: <u>0</u>	

**Dominance Test worksheet:**

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>22</u>	x 3 = <u>66</u>
FACU species <u>32</u>	x 4 = <u>128</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>54</u> (A)	<u>194</u> (B)

 Prevalence Index = B/A = 3.59
**Hydrophytic Vegetation Indicators:**

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

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

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

**Hydrophytic Vegetation Present?**

Yes ☐ No ☒

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

The sample plot does not satisfy the hydrophytic vegetation criterion.

## SOIL

Sampling Point: UPL-3

[illegible]

## ***Functions and Values***



*Pennsylvania*

# Wetland Functions and Values

US 6219-050 Meyersdale to Old Salisbury Road  
Summit and Elk Lick Townships, Somerset County, Pennsylvania

Wetland Name	Functions/Values
W1	Floodflow Alteration; Sediment/Toxicant Retention; Nutrient Removal
W2	Nutrient Removal
W4	Floodflow Alteration; Wildlife Habitat
W5	Sediment/Toxicant Retention
W6	Groundwater Recharge/Discharge
W7	Floodflow Alteration; Groundwater Recharge/Discharge
W7A	No principal function, but is suitable for Floodflow Alteration, Wildlife Habitat
W8	Sediment/Toxicant Retention
W9	Groundwater Recharge/Discharge
W11	Floodflow Alteration; Groundwater Recharge/Discharge
W12	Floodflow Alteration; Sediment/Toxicant Retention
W14	Wildlife Habitat
W15	Floodflow Alteration; Wildlife Habitat
W16	Floodflow Alteration; Wildlife Habitat
W17	Wildlife Habitat
W18	Floodflow Alteration; Wildlife Habitat
W19	Wildlife Habitat
W20	No principal function, but is suitable for Floodflow Alteration
W21	Sediment/Toxicant Retention
W22	Sediment/Toxicant Retention
W23	Wildlife Habitat
W24	Wildlife Habitat
W25	Wildlife Habitat
W26	Wildlife Habitat
W27	No principal function, but is suitable for Floodflow Alteration
W28	Floodflow Alteration; Wildlife Habitat
W29	Floodflow Alteration; Sediment/Toxicant Retention; Wildlife Habitat
W30	Floodflow Alteration; Nutrient Removal; Wildlife Habitat
W32	Wildlife Habitat
W34	Wildlife Habitat
W35	Wildlife Habitat
W36	Wildlife Habitat
W37	Floodflow Alteration; Sediment/Toxicant Retention
W38	No principal function, but is suitable for Floodflow Alteration
W40	Floodflow Alteration; Sediment/Toxicant Retention
W41	Floodflow Alteration; Sediment/Toxicant Retention; Nutrient Removal

W42	Floodflow Alteration; Sediment/Toxicant Retention; Nutrient Removal
W44	Floodflow Alteration; Sediment/Toxicant Retention; Nutrient Removal
W45	Floodflow Alteration; Wildlife Habitat
W46	Floodflow Alteration; Sediment/Toxicant Retention
W47	Wildlife Habitat
W48	Wildlife Habitat
W49	Floodflow Alteration; Wildlife Habitat
W50	Nutrient Removal
W51	Wildlife Habitat
W53	Wildlife Habitat
W55	No principal function, but is suitable for Groundwater Recharge/Discharge, Floodflow Alteration, and Sediment/Toxicant Retention
W56	Floodflow Alteration
W58	Sediment/Toxicant Retention; Nutrient Removal; Wildlife Habitat
W59	Sediment/Toxicant Retention; Nutrient Removal; Wildlife Habitat
W60	Sediment/Toxicant Retention
W61	Sediment/Toxicant Retention
W62	Floodflow Alteration; Wildlife Habitat
W63	Floodflow Alteration; Wildlife Habitat
W64	Floodflow Alteration; Sediment/Toxicant Retention; Nutrient Removal; Wildlife Habitat
W65	Nutrient Removal; Wildlife Habitat
W66	Floodflow Alteration; Nutrient Removal; Wildlife Habitat
W67	Sediment/Toxicant Retention; Sediment/Shoreline Stabilization
W68	Floodflow Alteration; Sediment/Toxicant Retention; Sediment/Shoreline Stabilization
W69	Wildlife Habitat
W70	Sediment/Shoreline Stabilization
W71	Wildlife Habitat
W72	Sediment/Toxicant Retention
W73	Wildlife Habitat
W74	Floodflow Alteration
W75	Groundwater Recharge/Discharge; Sediment/Toxicant Retention
W76	Floodflow Alteration
W77	Sediment/Toxicant Retention; Nutrient Removal
W78	Sediment/Toxicant Retention; Nutrient Removal
W78A	Floodflow Alteration
W79	Sediment/Toxicant Retention; Nutrient Removal
W80	Sediment/Toxicant Retention; Nutrient Removal
W81	Floodflow Alteration; Sediment/Shoreline Stabilization
W83	Floodflow Alteration; Sediment/Shoreline Stabilization
W85	Floodflow Alteration; Sediment/Shoreline Stabilization

W86	Floodflow Alteration; Sediment/Shoreline Stabilization
W87	Groundwater Recharge/Discharge
W88	Sediment/Shoreline Stabilization
W89	Floodflow Alteration; Sediment/Toxicant Retention; Sediment/Shoreline Stabilization
W90	Floodflow Alteration
W91	Groundwater Recharge/Discharge
W94	Floodflow Alteration; Groundwater Recharge/Discharge
W96	Groundwater Recharge/Discharge
W97	Wildlife Habitat
W98	Floodflow Alteration; Wildlife Habitat
W99	Floodflow Alteration; Wildlife Habitat
W100	Groundwater Recharge/Discharge; Nutrient Removal
W101	Groundwater Recharge/Discharge
W102	Floodflow Alteration; Groundwater Recharge/Discharge
W103	Floodflow Alteration
W103A	Floodflow Alteration

***Maryland***

# Wetland Function-Value Evaluation Form

Total area of wetland 37,368 Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PEM1B Contiguous undeveloped buffer zone present No

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 2 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WL004













Latitude 39.6995 Longitude -79.0966

Prepared by: AK Date 8/1/2022

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation  
completed? Y ☒ N ☐

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7, 8, 15	<input type="checkbox"/>	Wetland is associated with WUS WL005 & WL006
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,5,6,7,8,9,10,13,16	<input type="checkbox"/>	Wetland is associated with WUS WL005 & WL006
 Fish and Shellfish Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8, 14, 17	<input type="checkbox"/>	Wetland is associated with WUS WL005 & WL006
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 2, 4, 10, 11, 14, 15	<input type="checkbox"/>	Wetland is associated with WUS WL005 & WL006
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 9, 12	<input type="checkbox"/>	Wetland is dominated by emergent vegetation.
 Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Wildlife Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11, 13, 20	<input type="checkbox"/>	Wetland is dominated by emergent vegetation.
 Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

\* Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Total area of wetland 20,662 Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PEM1B Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 2 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WP011













Latitude 39.7165 Longitude -79.0847

Prepared by: AK Date 8/2/2022

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation  
completed? Y ☒ N ☐

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7, 8, 13	<input type="checkbox"/>	Wetland is associated with WUS WL012 & WL013
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2, 5, 7, 9, 13, 16	<input type="checkbox"/>	Wetland is associated with WUS WL012 & WL013
 Fish and Shellfish Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14, 17	<input type="checkbox"/>	Wetland is associated with WUS WL012 & WL013
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4, 10, 14	<input type="checkbox"/>	Wetland is associated with WUS WL012 & WL013
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 9, 12	<input type="checkbox"/>	Wetland is situated on a flat terrace on hillslope
 Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	19	<input type="checkbox"/>	Some crayfish burrows present
 Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

\* Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Total area of wetland 338 SF Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PEM1B Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 1 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WP020













Latitude 39.7201 Longitude -79.0826

Prepared by: AK Date 8/3/2022

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation  
completed? Y ☒ N ☐

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7, 8	<input type="checkbox"/>	Wetland is a bench along WUS WL016
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 7, 9, 13,	<input type="checkbox"/>	Wetland is associated with WUS WL016
 Fish and Shellfish Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14, 17	<input type="checkbox"/>	Wetland is associated with WUS WL016
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4, 10	<input type="checkbox"/>	Wetland is associated with WUS WL016
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 9, 12	<input type="checkbox"/>	Wetland is dominated by emergent vegetation
 Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

\* Refer to backup list of numbered considerations.



# Wetland Function-Value Evaluation Form

Total area of wetland 994 SF Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PEM1B Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 2 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WP022













Latitude 39.7202 Longitude -79.0825

Prepared by: AK Date 8/3/2022

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation  
completed? Y ☒ N ☐

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7, 8	<input type="checkbox"/>	Wetland is a bench along WUS WL014
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 7, 9, 13,	<input type="checkbox"/>	Wetland is associated with WUS WL014 & WL021
 Fish and Shellfish Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14, 17	<input type="checkbox"/>	Wetland is associated with WUS WL014 & WL021
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4, 10	<input type="checkbox"/>	Wetland is associated with WUS WL014 & WL021
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 9, 12	<input type="checkbox"/>	Wetland is dominated by emergent vegetation
 Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	19	<input type="checkbox"/>	Some crayfish burrows present
 Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

\* Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Total area of wetland 3,400S Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture/Forest Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PEM1B Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WP032













Latitude 39.7204 Longitude -79.0822

Prepared by: AK Date 8/3/22

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation  
completed? Y ☒ N ☐

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7, 8	<input type="checkbox"/>	on bank/floodplain of WUS WL014
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5	<input type="checkbox"/>	Hydric soils
 Fish and Shellfish Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	<input type="checkbox"/>	Hydric soils with organic matter
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	<input type="checkbox"/>	
 Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

\* Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Total area of wetland 1,586S Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PEM1B Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 1 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WP025













Latitude 39.7204 Longitude -79.0822

Prepared by: AK Date 8/3/2022

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation  
completed? Y ☒ N ☐

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7, 8	<input type="checkbox"/>	Wetland is a bench along WUS WL014
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 7, 9, 13,	<input type="checkbox"/>	Wetland is associated with WUS WL014
 Fish and Shellfish Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14, 17	<input type="checkbox"/>	Wetland is associated with WUS WL014
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4, 10	<input type="checkbox"/>	Wetland is associated with WUS WL014
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 9, 12	<input type="checkbox"/>	Wetland is dominated by emergent vegetation
 Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	19	<input type="checkbox"/>	Some crayfish burrows present
 Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

\* Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Total area of wetland 13,192 Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PEM1B Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WP026













Latitude 39.7079 Longitude -79.0923

Prepared by: AK Date 10/27/2022

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation  
completed? Y ☒ N ☐

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8	<input type="checkbox"/>	Groundwater influenced
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 9	<input type="checkbox"/>	Wetland gathers overland flow from surrounding uplands
 Fish and Shellfish Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	<input type="checkbox"/>	
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 9	<input type="checkbox"/>	Wetland is dominated by emergent vegetation
 Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

\* Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Total area of wetland 953SF Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture/Forest Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PFO1B Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WP029













Latitude 39.7195 Longitude -79.0825

Prepared by: AK Date 10/27/2022

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation  
completed? Y ☒ N ☐

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8, 10, 13	<input type="checkbox"/>	Rocky seep outlets to WUS WL014
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5	<input type="checkbox"/>	Hydric soils
 Fish and Shellfish Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4, 10, 13, 14	<input type="checkbox"/>	Rocky seep outlets to WUS WL014
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12	<input type="checkbox"/>	Rocky seep outlets to WUS WL014
 Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

\* Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Total area of wetland 519SF Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture/Forest Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PFO1B Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WP030













Latitude 39.7194 Longitude --79.0830

Prepared by: AK Date 10/27/2022

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation  
completed? Y ☒ N ☐

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8, 10, 12, 13	<input type="checkbox"/>	Ponded seep
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5, 7, 15	<input type="checkbox"/>	Hydric soils, standing water surrounded by boulder field
 Fish and Shellfish Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	<input type="checkbox"/>	Hydric soils with organic matter
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	<input type="checkbox"/>	
 Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

\* Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Total area of wetland 10,498 Human made? Possible Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture/Forest Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PEM1F Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WP031













Latitude 39.7148 Longitude -79.0839

Prepared by: AK Date 5/15/23

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation completed? Y ☒ N ☐

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/> <input type="checkbox"/>	7, 8, 10, 12, 13	<input type="checkbox"/> Ponded seep	
 Floodflow Alteration	<input checked="" type="checkbox"/> <input type="checkbox"/>	5, 7, 13, 14, 15	<input type="checkbox"/> Hydric soils, ponded water, outlets via WUS WL013	
 Fish and Shellfish Habitat	<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/> <input type="checkbox"/>	4, 5, 6, 10	<input type="checkbox"/> Hydric soils, ponded water, outlets via WUS WL013	
 Nutrient Removal	<input checked="" type="checkbox"/> <input type="checkbox"/>	2, 7, 13, 14	<input type="checkbox"/> Ponded, open, standing water, outlets via WUS WL013	
 Production Export	<input checked="" type="checkbox"/> <input type="checkbox"/>	2, 10, 11, 13	<input type="checkbox"/> Ponded, open, standing water, outlets via WUS WL013	
 Sediment/Shoreline Stabilization	<input checked="" type="checkbox"/> <input type="checkbox"/>	7	<input type="checkbox"/> Ponded, open, standing water	
 Wildlife Habitat	<input checked="" type="checkbox"/> <input type="checkbox"/>	4, 5, 6, 19, 20	<input type="checkbox"/> Ponded, open, standing water	
 Recreation	<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input checked="" type="checkbox"/> <input type="checkbox"/>	2	<input type="checkbox"/> Ponded, open, standing water	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

Ground water seep contributes hydrology, partially impounded

\* Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Total area of wetland 2,774S Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Agriculture/Forest Distance to nearest roadway or other development \_\_\_\_\_

Dominant wetland systems present PEM1B Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? Yes If not, where does the wetland lie in the drainage basin? N/A

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WP032













Latitude 39.7225 Longitude -79.0811

Prepared by: AK Date 5/15/23

Wetland Impact:  
Type \_\_\_\_\_ Area \_\_\_\_\_

Evaluation based on:  
Office \_\_\_\_\_ Field X

Corps manual wetland delineation completed? Y ☒ N ☐

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7, 8	<input type="checkbox"/>	on bank/floodplain of WUS WL014
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5	<input type="checkbox"/>	Hydric soils
 Fish and Shellfish Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	<input type="checkbox"/>	Hydric soils with organic matter
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	<input type="checkbox"/>	
 Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Uniqueness/Heritage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>ES</b> Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Notes:

\* Refer to backup list of numbered considerations.



## **APPENDIX C**

### ***Stream Features Field Data Sheets***

*Pennsylvania*

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S1	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 6:00	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.794103	<b>Long.</b> -79.034262	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S1-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 48 _____
	50 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>		<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial	<input type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:	<input type="checkbox"/> Heavy
	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Other:	
	Local Watershed NPS Pollution: runoff from road/lawns		

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input checked="" type="checkbox"/> Trees	<input checked="" type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input checked="" type="checkbox"/> Herbaceous
	Dominant Species:	European black alder, silky dogwood, bush honeysuckle, goldenrod, creeping jenny			

<b>Instream Features</b>	<b>Average Stream Width</b>	6 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	10 % Riffle
	<b>Average Stream Depth</b>	12 in.	<input type="checkbox"/> Partly shaded		10 % Run	
	<b>High Water Mark</b>	12 in.	<input type="checkbox"/> Shaded		80 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly, spiral snail	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	5
Gravel	0.1" - 2.5"	10
Sand	(gritty)	20
Silt		30
Clay	(slick)	30

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	5
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S1A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 6:00	<b>Watershed:</b> Miller Run	
<b>Lat.</b> 39.792226	<b>Long.</b> -79.033678	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S1A-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	50	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>		<b>Local Watershed Erosion</b>
	<input type="checkbox"/> Forest	<input type="checkbox"/> Commercial	<input type="checkbox"/> None
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:	
	Local Watershed NPS Pollution: _____		

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input type="checkbox"/> Trees	<input type="checkbox"/> Shrubs	<input checked="" type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	Red maple, callary pear, multiflora rose, honeysuckle, teasle, colts foot reed canary grass, cleaver			

<b>Instream Features</b>	<b>Average Stream Width</b>	5 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	0 % Riffle
	<b>Average Stream Depth</b>	<1 in.	<input type="checkbox"/> Partly shaded		100 % Run	
	<b>High Water Mark</b>	4 in.	<input type="checkbox"/> Shaded		0 % Pool	
	<b>Sampling Reach Length</b>	500 ft.	<input checked="" type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input checked="" type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Scuds	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	20
Cobble	2.5" - 10"	80
Gravel	0.1" - 2.5"	0
Sand	(gritty)	0
Silt		0
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S2	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/24/2023	<b>Time:</b> 2:43	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.787320	<b>Long.</b> -79.032633	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S2-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 45 _____
	50 % cloud cover	50	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: acid mine drainage	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Rhododendron, yellow birch, red maple, skunk cabbage

<b>Instream Features</b>	<b>Average Stream Width</b>	10 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	25 % Riffle
	<b>Average Stream Depth</b>	6 in.	<input type="checkbox"/> Partly shaded		50 % Run	
	<b>High Water Mark</b>	12 in.	<input checked="" type="checkbox"/> Shaded		25 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input checked="" type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	15
Cobble	2.5" - 10"	50
Gravel	0.1" - 2.5"	20
Sand	(gritty)	10
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S2A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/24/2023	<b>Time:</b> 11:50	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.786703	<b>Long.</b> -79.031184	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S2A-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 40 _____
	<input type="checkbox"/> 100 % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: yellow birch, skunk cabbage, sphagnum, goldenrod

<b>Instream Features</b>	<b>Average Stream Width</b>	2 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	90 % Riffle
	<b>Average Stream Depth</b>	1 in.	<input checked="" type="checkbox"/> Partly shaded		0 % Run	
	<b>High Water Mark</b>	4 in.	<input type="checkbox"/> Shaded		10 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input checked="" type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Midges, leech	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	30
Gravel	0.1" - 2.5"	50
Sand	(gritty)	15
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	40
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S2B	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/24/2023	<b>Time:</b> 11:30	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.787089	<b>Long.</b> -79.031691	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S2B-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 50 _____
	<input type="checkbox"/> 100 % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: roadway
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>Morrow's honeysuckle, red maple, sumac, garlic mustard, grass, multiflora rose, sneezeweed, goldenrod</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	3-4 ft.	<input type="checkbox"/> Partly open	_____ % Riffle
	<b>Average Stream Depth</b>	<input checked="" type="checkbox"/> Partly shaded	_____ % Run
	0 in.	<input type="checkbox"/> Shaded	_____ % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A
	24 in.		
	<b>Sampling Reach Length</b>		
	50 ft.		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	_____	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Precipitation

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		
Boulder	> 10"	20
Cobble	2.5" - 10"	35
Gravel	0.1" - 2.5"	30
Sand	(gritty)	15
Silt		10
Clay	(slick)	

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S2C	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/24/2023	<b>Time:</b> 4:30	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.784777	<b>Long.</b> -79.028809	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S2C-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	100	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input checked="" type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: roadway, mine
	Local Watershed NPS Pollution: _____	<input type="checkbox"/> None <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Yellow birch, Red maple, multiflora rose, skunk cabbage, honeysuckle, garlic mustard, jewelweed, witch hazel, beech

<b>Instream Features</b>	<b>Average Stream Width</b>	10-12 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	80 % Riffle
	<b>Average Stream Depth</b>	2-3 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> Shaded	15 % Run	
	<b>High Water Mark</b>	8 in.	<input type="checkbox"/> Shaded	<input type="checkbox"/> None	5 % Pool	
	<b>Sampling Reach Length</b>	200 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly, mayfly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		
Boulder	> 10"	10
Cobble	2.5" - 10"	25
Gravel	0.1" - 2.5"	40
Sand	(gritty)	20
Silt		5
Clay	(slick)	

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0



# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S2D	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/24/2023	<b>Time:</b> 5:00	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.784097	<b>Long.</b> 79.028308	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S2D-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 43
	20 % cloud cover	100	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input checked="" type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: roadway
	Local Watershed NPS Pollution:	Roadway runoff

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: Red maple, witch hazel, skunk cabbage, jewelweed, intermediate wood fern

<b>Instream Features</b>	<b>Average Stream Width</b>	6 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	50 % Riffle
	<b>Average Stream Depth</b>	3 in.	<input checked="" type="checkbox"/> Partly shaded		20 % Run	
	<b>High Water Mark</b>	4 in.	<input type="checkbox"/> Shaded		30 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input checked="" type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input checked="" type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Caddisfly, mayfly, scuds	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	25
Cobble	2.5" - 10"	35
Gravel	0.1" - 2.5"	20
Sand	(gritty)	10
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S3	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 9:55	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.776558	<b>Long.</b> -79.030001	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S3-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 35 _____
	<input type="checkbox"/> % cloud cover	50	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Red maple, striped maple, multiflora rose, coltsfoot, jewelweed, ferns

<b>Instream Features</b>	<b>Average Stream Width</b>	4 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	20 % Riffle
	<b>Average Stream Depth</b>	1 in.	<input type="checkbox"/> Partly shaded		50 % Run	
	<b>High Water Mark</b>	3 in.	<input checked="" type="checkbox"/> Shaded		30 % Pool	
	<b>Sampling Reach Length</b>	200 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly, stonefly, scud	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Pond

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	30
Cobble	2.5" - 10"	30
Gravel	0.1" - 2.5"	5
Sand	(gritty)	5
Silt		30
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	5
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S4	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 10:30	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.780073	<b>Long.</b> -79.031351	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S4-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 45 _____
	<input type="checkbox"/> % cloud cover	50	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input checked="" type="checkbox"/> Trees	<input type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	Red maple, black cherry, garlic mustard, beech, jewelweed, dandelion, grass, forsynthia			

<b>Instream Features</b>	<b>Average Stream Width</b>	8 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	50 % Riffle
	<b>Average Stream Depth</b>	1-2 in.	<input checked="" type="checkbox"/> Partly shaded		50 % Run	
	<b>High Water Mark</b>	6 in.	<input type="checkbox"/> Shaded		% Pool	
	<b>Sampling Reach Length</b>	150 ft.	<input type="checkbox"/> None		N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Sowbug, stonefly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	30
Gravel	0.1" - 2.5"	20
Sand	(gritty)	30
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S4A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 10:35	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.779501	<b>Long.</b> -79.030098	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S4A-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 40 _____
	30 _____ % cloud cover	50 _____	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	Residential runoff _____

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Red maple, black cherry, witch hazel, blackberry, goldenrod

<b>Instream Features</b>	<b>Average Stream Width</b>	4 _____ ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	_____ % Riffle
	<b>Average Stream Depth</b>	0 _____ in.	<input checked="" type="checkbox"/> Partly shaded	_____ % Run		
	<b>High Water Mark</b>	6 _____ in.	<input type="checkbox"/> Shaded	_____ % Pool		
	<b>Sampling Reach Length</b>	50 _____ ft.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	_____	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
		<input checked="" type="checkbox"/> Other: Precipitation	

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	30
Cobble	2.5" - 10"	25
Gravel	0.1" - 2.5"	20
Sand	(gritty)	10
Silt		15
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	15
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S4B	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 10:45	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.779821	<b>Long.</b> -79.029883	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S4B-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input checked="" type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 40 _____
	<input type="checkbox"/> 20 _____ % cloud cover	<input type="checkbox"/> 50 _____	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>Black cherry, green ash, striped maple, christmas fern, witch hazel, multiflora rose, jewelweed</u>

<b>Instream Features</b>	<b>Average Stream Width</b> 4 _____ ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 0 _____ in.	<input checked="" type="checkbox"/> Partly open	_____ % Riffle
	<b>High Water Mark</b> 3 _____ in.	<input type="checkbox"/> Partly shaded	_____ % Run
	<b>Sampling Reach Length</b> 50 _____ ft.	<input type="checkbox"/> Shaded	_____ % Pool
		<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Precipitation

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	5
Gravel	0.1" - 2.5"	5
Sand	(gritty)	10
Silt		65
Clay	(slick)	10

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	90
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S5	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/24/2023	<b>Time:</b> 11:30	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.786124	<b>Long.</b> -79.031478	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S5-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 40 _____
	<input type="checkbox"/> 100 % cloud cover	<input type="checkbox"/> 50	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Residential	<input type="checkbox"/> Heavy
	Local Watershed NPS Pollution: _____	Roadway runoff: _____
	<input type="checkbox"/> Industrial	
	<input type="checkbox"/> Roadway:	
	<input checked="" type="checkbox"/> Other: roadway/stormwater	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: Yellow birch, goldenrod, smooth bedstraw

<b>Instream Features</b>	<b>Average Stream Width</b>	3 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	100 % Riffle
	<b>Average Stream Depth</b>	2 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/>	0 % Run	
	<b>High Water Mark</b>	6 in.	<input type="checkbox"/> Shaded	<input type="checkbox"/>	0 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/>	N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input checked="" type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Caddisfly, mayfly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: stormwater

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	20
Sand	(gritty)	10
Silt		45
Clay	(slick)	10

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S7	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 12:00	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.770560	<b>Long.</b> -79.030920	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S7-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 45
	<input type="checkbox"/> 20 % cloud cover	<input type="checkbox"/> 50	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Red maple, sweet birch, witch hazel, spinulose wood fern

<b>Instream Features</b>	<b>Average Stream Width</b> 4 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 3 in.	<input type="checkbox"/> Partly open	30 % Riffle
	<b>High Water Mark</b> 4 in.	<input checked="" type="checkbox"/> Partly shaded	60 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input checked="" type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly, mayfly, scuds, stonefly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	20
Sand	(gritty)	50
Silt		15
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S7A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 12:30	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.771280	<b>Long.</b> -79.030375	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S7A-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 45
	<input type="checkbox"/> 10 % cloud cover	<input type="checkbox"/> 50	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>sweet birch, red maple, witch hazel, spinulose wood fern, skunk cabbage, swamp dewberry</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	3 ft.	<input type="checkbox"/> Partly open	20 % Riffle
	<b>Average Stream Depth</b>	<input checked="" type="checkbox"/> Partly shaded	70 % Run
	2 in.	<input type="checkbox"/> Shaded	10 % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A
	4 in.		
	<b>Sampling Reach Length</b>		
	50 ft.		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>Caddisfly, mayfly, scuds, stonefly</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	5
Sand	(gritty)	65
Silt		15
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	15
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0



# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S7B	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 12:30	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.771292	<b>Long.</b> -79.030825	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S7B-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 50
	<input type="checkbox"/> % cloud cover	50	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: sweet birch, red maple, black cherry, witch hazel, greenbrier, cucumber magnolia, blackberry, fern

<b>Instream Features</b>	<b>Average Stream Width</b>	3 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	<input type="checkbox"/> % Riffle
	<b>Average Stream Depth</b>	1-2 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> % Run		
	<b>High Water Mark</b>	1-2 in.	<input checked="" type="checkbox"/> Shaded	<input type="checkbox"/> % Pool		
	<b>Sampling Reach Length</b>	30 ft.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input checked="" type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Scud, aquatic annelid	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		
Boulder	> 10"	10
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	15
Sand	(gritty)	50
Silt		5
Clay	(slick)	

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	
Marl	grey, shell fragments	

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S8	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 1:30	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.767613	<b>Long.</b> -79.034666	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S8-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 48
	10 % cloud cover	50	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: black cherry, sweet birch, red maple, witch hazel, spinulose wood fern

<b>Instream Features</b>	<b>Average Stream Width</b>	10 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	80 % Riffle
	<b>Average Stream Depth</b>	2 in.	<input type="checkbox"/> Partly shaded		10 % Run	
	<b>High Water Mark</b>	3 in.	<input checked="" type="checkbox"/> Shaded		10 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Caddisflies, midges	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		
Boulder	> 10"	10
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	10
Sand	(gritty)	50
Silt		10
Clay	(slick)	

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	40
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S9	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 2:15	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.765724	<b>Long.</b> -79.034590	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S9-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 50 _____
	<input type="checkbox"/> % cloud cover	50	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: black cherry, red maple, striped maple, wood fern, green brier, witch hazel

<b>Instream Features</b>	<b>Average Stream Width</b>	3 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	_____ % Riffle
	<b>Average Stream Depth</b>	1 in.	<input type="checkbox"/> Partly shaded		100 % Run	
	<b>High Water Mark</b>	1 in.	<input checked="" type="checkbox"/> Shaded		_____ % Pool	
	<b>Sampling Reach Length</b>	30 ft.	<input type="checkbox"/> None		_____ N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		
Boulder	> 10"	30
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	5
Sand	(gritty)	40
Silt		5
Clay	(slick)	

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	
Muck-Mud	black, very fine organic	
Marl	grey, shell fragments	

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S10	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 12:30	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.761467	<b>Long.</b> 79.036927	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S10-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 52
	20 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny		

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Red oak, sweet birch, sassafras, green brier, intermediate wood fern

<b>Instream Features</b>	<b>Average Stream Width</b>	4 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	100 % Riffle
	<b>Average Stream Depth</b>	1 in.	<input type="checkbox"/> Partly shaded			% Run
	<b>High Water Mark</b>	3 in.	<input checked="" type="checkbox"/> Shaded			% Pool
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None			N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Caddisflies, scuds	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		
Boulder	> 10"	15
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	25
Sand	(gritty)	15
Silt		30
Clay	(slick)	

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	60
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S11	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 12:20	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.760656	<b>Long.</b> 79.037690	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S11-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 51
	30 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>black cherry, cucumber magnolia, sweet birch, red oak, witch hazel, intermediate wood fern, green brier</u>

<b>Instream Features</b>	<b>Average Stream Width</b> 4 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 1 in.	<input type="checkbox"/> Partly open	100 % Riffle
	<b>High Water Mark</b> 3 in.	<input type="checkbox"/> Partly shaded	% Run
	<b>Sampling Reach Length</b> 50 ft.	<input checked="" type="checkbox"/> Shaded	% Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		
Boulder	> 10"	5
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	15
Sand	(gritty)	40
Silt		25
Clay	(slick)	

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	60
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S12	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 12:20	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.760332	<b>Long.</b> -79.037936	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S12-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 52
	30 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny		

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>red oak, black cherry, sweet birch, cucumber magnolia, witch hazel, green brier, wood fern</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	8 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	30 % Riffle
	<b>Average Stream Depth</b>	2 in.	<input type="checkbox"/> Partly shaded		20 % Run	
	<b>High Water Mark</b>	6-8 in.	<input checked="" type="checkbox"/> Shaded		50 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>scuds, midges, caddisfly</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		
Boulder	> 10"	10
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	30
Sand	(gritty)	25
Silt		20
Clay	(slick)	

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	50
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S13	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 04/26/2023	<b>Time:</b> 12:00 pm	<b>Watershed:</b> CASSELMAN RIVER	
<b>Lat.</b> 39.758308	<b>Long.</b> -79.039124	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S13-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: Red maple, wood fern, greenbrier

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	4 ft.	<input checked="" type="checkbox"/> Partly open	10 % Riffle
	<b>Average Stream Depth</b>	<input type="checkbox"/> Partly shaded	90 % Run
	2 in.	<input type="checkbox"/> Shaded	0 % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	
	2 in.		
	<b>Sampling Reach Length</b>		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Caddis fly pupa	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral		<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	10
Sand	(gritty)	60
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	30
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S15	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 9:13 am	<b>Watershed:</b> CASSELMAN RIVER	
<b>Lat.</b> 39.756822	<b>Long.</b> -79.040612	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S15-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> _____
	20 % cloud cover	50	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: Red maple, red oak, wood fern, wood aster, round leaved violet

<b>Instream Features</b>	<b>Average Stream Width</b> 4 ft.	<b>Canopy Cover</b> <input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b> _____ % Riffle
	<b>Average Stream Depth</b> 1-2 in.	<input type="checkbox"/> Partly shaded	100 % Run
	<b>High Water Mark</b> 4 in.	<input type="checkbox"/> Shaded	_____ % Pool
	<b>Sampling Reach Length</b> 100 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Caddis fly, midge larva	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	15
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	10
Sand	(gritty)	50
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0



# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S16	
<b>Township:</b> Summit and Elk Like	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 10:00 am	<b>Watershed:</b> CASSELMAN RIVER	
<b>Lat.</b> 39.757815	<b>Long.</b> -79.040290	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S16-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 48
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: none	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Red oak, sweet birch, black cherry, witch hazel, green brier, wood fern

<b>Instream Features</b>	<b>Average Stream Width</b>	10 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	20 % Riffle
	<b>Average Stream Depth</b>	4 in.	<input checked="" type="checkbox"/> Partly shaded		30 % Run	
	<b>High Water Mark</b>	8 in.	<input type="checkbox"/> Shaded		50 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	midges, caddis fly pupa, stone fly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	20
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	25
Sand	(gritty)	35
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S16A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 10:30 am	<b>Watershed:</b> CASSELMAN RIVER	
<b>Lat.</b> 39.756928	<b>Long.</b> -79.039132	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S16A-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 50
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>Wood fern, violets, green brier, sweet birch, beech tree, red oak, black cherry, red maple</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	3-4 ft.	<input checked="" type="checkbox"/> Partly open	40 % Riffle
	<b>Average Stream Depth</b>	<input type="checkbox"/> Partly shaded	60 % Run
	2 in.	<input type="checkbox"/> Shaded	% Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	6 in.		
	<b>Sampling Reach Length</b>		
	300 ft.		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>Caddis fly pupa, midge larva</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	20
Sand	(gritty)	30
Silt		20
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	5
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S16B	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 9:20 am	<b>Watershed:</b> CASSELMAN RIVER	
<b>Lat.</b> 39.756370	<b>Long.</b> -79.039542	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S16B-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 45
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: none	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Sweet birch, red maple, cucumber magnolia

<b>Instream Features</b>	<b>Average Stream Width</b> 5 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 3 in.	<input type="checkbox"/> Partly open	10 % Riffle
	<b>High Water Mark</b> 5 in.	<input type="checkbox"/> Partly shaded	30 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input checked="" type="checkbox"/> Shaded	60 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Caddis fly pupa, mayfly larva	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	20
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	15
Sand	(gritty)	40
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	15
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S16C	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 10:45 am	<b>Watershed:</b> CASSELMAN RIVER	
<b>Lat.</b> 39.756994	<b>Long.</b> -79.039896	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S16C-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 48
	30 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Black cherry, sweet birch, cucumber magnolia, witch hazel, wood fern

<b>Instream Features</b>	<b>Average Stream Width</b>	4 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	40 % Riffle
	<b>Average Stream Depth</b>	3 in.	<input type="checkbox"/> Partly shaded		10 % Run	
	<b>High Water Mark</b>	6 in.	<input checked="" type="checkbox"/> Shaded		50 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	May fly larva, midge larva	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	5
Gravel	0.1" - 2.5"	15
Sand	(gritty)	55
Silt		15
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	20
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S16D	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 10:20 am	<b>Watershed:</b> CASSELMAN RIVER	
<b>Lat.</b> 39.757134	<b>Long.</b> -79.039852	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S16D-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 48
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: none	<input checked="" type="checkbox"/> None
		<input type="checkbox"/> Moderate
		<input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Sweet birch, black cherry, cucumber magnolia, red oak, wood fern green brier

<b>Instream Features</b>	<b>Average Stream Width</b> 2 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 1 in.	<input type="checkbox"/> Partly open	80 % Riffle
	<b>High Water Mark</b> in.	<input type="checkbox"/> Partly shaded	5 % Run
	<b>Sampling Reach Length</b> ft.	<input checked="" type="checkbox"/> Shaded	15 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		
None <input checked="" type="checkbox"/>			

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
Not Applicable <input type="checkbox"/>			

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	20
Sand	(gritty)	35
Silt		30
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	20
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S16E	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 11:30 am	<b>Watershed:</b> CASSELMAN RIVER	
<b>Lat.</b> 39.756427	<b>Long.</b> -79.039026	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S16E-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 60 _____
	30 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Red maple, sweet birch, green brier, violet, wood fern, deer tongue grass, beech, witch hazel, red oak, black cherry

<b>Instream Features</b>	<b>Average Stream Width</b> 4 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 4 in.	<input type="checkbox"/> Partly open	20 % Riffle
	<b>High Water Mark</b> 10 in.	<input type="checkbox"/> Partly shaded	70 % Run
	<b>Sampling Reach Length</b> 30 ft.	<input checked="" type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly pupa, stone fly larva	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	20
Sand	(gritty)	50
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S17	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 9:00am	<b>Watershed:</b> CASSELMAN RIVER	
<b>Lat.</b> 39.755706	<b>Long.</b> -79.039831	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S17-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 45 _____
	30 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: none	<input checked="" type="checkbox"/> None
		<input type="checkbox"/> Moderate
		<input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input checked="" type="checkbox"/> Trees	<input checked="" type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	Black cherry, sweet birch, green brier, wood fern			

<b>Instream Features</b>	<b>Average Stream Width</b>	6 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	100 % Riffle
	<b>Average Stream Depth</b>	1 in.	<input checked="" type="checkbox"/> Partly shaded			% Run
	<b>High Water Mark</b>	3 in.	<input type="checkbox"/> Shaded			% Pool
	<b>Sampling Reach Length</b>	20 ft.	<input type="checkbox"/> None			N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	caddis fly pupa, mayfly, midges	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	35
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	20
Sand	(gritty)	20
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	35
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S18	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 2:30 pm	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.752627	<b>Long.</b> -79.041675	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S18-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 51
	50 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>		<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial	<input type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:	
	Local Watershed NPS Pollution: gravel from roadway runoff		

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input checked="" type="checkbox"/> Trees	<input type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	sweet birch, red maple, cucumber magnolia, green brier, wood fern, sedge sp.			

<b>Instream Features</b>	<b>Average Stream Width</b>	4 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	60 % Riffle
	<b>Average Stream Depth</b>	2 in.	<input checked="" type="checkbox"/> Partly shaded		10 % Run	
	<b>High Water Mark</b>	10 in.	<input type="checkbox"/> Shaded		30 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Mayflies, caddis fly pupa	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	5
Gravel	0.1" - 2.5"	10
Sand	(gritty)	25
Silt		40
Clay	(slick)	10

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	15
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0



# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S19	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 5:00 pm	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.749048	<b>Long.</b> -79.044003	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S19-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 60 _____
	80 _____ % cloud cover	50 _____	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>Witch hazel, sugar maple, eastern hemlock, red maple, sweet birch, green brier, deer tongue grass, mayflower</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	5 _____ ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	50 _____ % Riffle
	<b>Average Stream Depth</b>	1-2 _____ in.	<input type="checkbox"/> Partly shaded		50 _____ % Run	
	<b>High Water Mark</b>	4 _____ in.	<input type="checkbox"/> Shaded		_____ % Pool	
	<b>Sampling Reach Length</b>	30 _____ ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input checked="" type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	<u>caddis fly pupa, scuds</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	30
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	30
Sand	(gritty)	10
Silt		20
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	5
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S20	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 4:50 pm	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.748279	<b>Long.</b> -79.043275	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S20-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input checked="" type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 54
	<input type="checkbox"/> 60 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>Red maple, sweet birch, cucumber magnolia, stripped maple, green brier, wood fern</u>

<b>Instream Features</b>	<b>Average Stream Width</b> 5 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 0 in.	<input checked="" type="checkbox"/> Partly open	100 % Riffle
	<b>High Water Mark</b> 2 in.	<input type="checkbox"/> Partly shaded	0 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input type="checkbox"/> Shaded	0 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	0
Gravel	0.1" - 2.5"	0
Sand	(gritty)	0
Silt		100
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	90
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S21	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 5:00 pm	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.748553	<b>Long.</b> -79.044508	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S21-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 54
	<input type="checkbox"/> 80 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other:
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Sweet birch, cucumber magnolia, black cherry, witch hazel, wood fern, violet

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	4 ft.	<input type="checkbox"/> Partly open	50 % Riffle
	<b>Average Stream Depth</b>	<input checked="" type="checkbox"/> Partly shaded	10 % Run
	2 in.	<input type="checkbox"/> Shaded	40 % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	4 in.		
	50 ft.		
	<b>Sampling Reach Length</b>		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	midges, caddis fly pupa	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	5
Gravel	0.1" - 2.5"	0
Sand	(gritty)	0
Silt		10
Clay	(slick)	75

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	25
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S23	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 5:30 pm	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.745408	<b>Long.</b> -79.048337	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S23-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 60
	<input type="checkbox"/> % cloud cover	30	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>Witch hazel, red maple, cucumber magnolia, sweet birch, striped maple, green brier, poison ivy, swamp dewberry, violet</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	3 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	100 % Riffle
	<b>Average Stream Depth</b>	0-1 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	<b>High Water Mark</b>	6 in.	<input type="checkbox"/> Shaded		0 % Pool	
	<b>Sampling Reach Length</b>	20 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>  None <input checked="" type="checkbox"/>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>  Not Applicable <input checked="" type="checkbox"/>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	30
Gravel	0.1" - 2.5"	30
Sand	(gritty)	25
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S24	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 4:15 pm	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.743917	<b>Long.</b> -79.047770	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S24-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 60 _____
	30 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>green ash, wood fern, cucumber magnolia, red maple, sweet birch, round leaved violet</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	1 _____ ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	50 _____ % Riffle
	<b>Average Stream Depth</b>	1 _____ in.	<input type="checkbox"/> Partly shaded		30 _____ % Run	
	<b>High Water Mark</b>	2 _____ in.	<input type="checkbox"/> Shaded		20 _____ % Pool	
	<b>Sampling Reach Length</b>	30 _____ ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>caddis fly pupa, midges</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	0
Gravel	0.1" - 2.5"	0
Sand	(gritty)	40
Silt		0
Clay	(slick)	60

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	5
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S25	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/26/2023	<b>Time:</b> 10:30 am	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.743931	<b>Long.</b> -79.047102	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S25-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 60 _____
	30 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>lance leaved aster, colts foot, sweet birch, black ash, red maple, cucumber magnolia, grape vine</u>

<b>Instream Features</b>	<b>Average Stream Width</b> 2 _____ ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 2 _____ in.	<input checked="" type="checkbox"/> Partly open	30 _____ % Riffle
	<b>High Water Mark</b> 2 _____ in.	<input type="checkbox"/> Partly shaded	70 _____ % Run
	<b>Sampling Reach Length</b> 30 _____ ft.	<input type="checkbox"/> Shaded	_____ % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>scuds, caddis fly pupa</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	0
Gravel	0.1" - 2.5"	30
Sand	(gritty)	50
Silt		20
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	15
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S26	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 3:20 pm	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.743617	<b>Long.</b> -79.049226	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S26-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 55 _____
	50 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	sedimentation from road _____

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Sweet birch, red oak, red maple, witch hazel, sassafras, green brier, violet

<b>Instream Features</b>	<b>Average Stream Width</b>	4 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	70 % Riffle
	<b>Average Stream Depth</b>	2 in.	<input type="checkbox"/> Partly shaded		20 % Run	
	<b>High Water Mark</b>	5 in.	<input checked="" type="checkbox"/> Shaded		10 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Caddis fly pupa, may fly, midges	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	15
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	40
Sand	(gritty)	20
Silt		15
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S27	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 3:00 pm	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.743954	<b>Long.</b> -79.048943	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S27-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 53
	<input type="checkbox"/> 50 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Roadway: <input checked="" type="checkbox"/> Other: dirt road	sedimentaion from road

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: Sweet birch, red maple, violet, wood fern, aster, yellow nut sedge

<b>Instream Features</b>	<b>Average Stream Width</b> 5 ft.	<b>Canopy Cover</b> <input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b> 80 % Riffle
	<b>Average Stream Depth</b> 1 in.	<input type="checkbox"/> Partly shaded	10 % Run
	<b>High Water Mark</b> 3 in.	<input type="checkbox"/> Shaded	10 % Pool
	<b>Sampling Reach Length</b> 50 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	midges caddis, fly pupa, may fly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	50
Sand	(gritty)	20
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0



# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S28	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 3:40 pm	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.744852	<b>Long.</b> -79.047434	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S28-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 52
	<input type="checkbox"/> 80 % cloud cover	<input type="checkbox"/> 50	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>Beech, sweet birch, multiflora rose, cucumber magnolia, red maple, aster, chestnut oak, greenbrier</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	1 ft.	<input type="checkbox"/> Partly open	10 % Riffle
	<b>Average Stream Depth</b>	<input checked="" type="checkbox"/> Partly shaded	90 % Run
	1-2 in.	<input type="checkbox"/> Shaded	0 % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	3 in.		
	<b>Sampling Reach Length</b>		
	30 ft.		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>Stone fly, caddisfly pupa</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	20
Sand	(gritty)	0
Silt		30
Clay	(slick)	40

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	15
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S29	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 3:30 pm	<b>Watershed:</b> PINEY CREEK	
<b>Lat.</b> 39.740926	<b>Long.</b> -79.051107	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S29-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 55 _____
	<input type="checkbox"/> 70 % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: none	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Sweet birch, chestnut oak, red maple, montian laurel, wood fern, violet

<b>Instream Features</b>	<b>Average Stream Width</b> 8 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 1 in.	<input type="checkbox"/> Partly open	70 % Riffle
	<b>High Water Mark</b> 4 in.	<input checked="" type="checkbox"/> Partly shaded	20 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Stone fly, caddis fly pupa	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	30
Sand	(gritty)	20
Silt		15
Clay	(slick)	5

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	35
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S29A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 3:50 pm	<b>Watershed:</b> PINEY RUN	
<b>Lat.</b> 39.740953	<b>Long.</b> -79.051075	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S29A-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 55 _____
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Sweet birch, red maple, green brier, violet, wood fern, aster sp. _____

<b>Instream Features</b>	<b>Average Stream Width</b>	2 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	100 % Riffle
	<b>Average Stream Depth</b>	1 in.	<input type="checkbox"/> Partly shaded			% Run
	<b>High Water Mark</b>	4 in.	<input type="checkbox"/> Shaded			% Pool
	<b>Sampling Reach Length</b>	20 ft.	<input type="checkbox"/> None			N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	caddis fly pupa, scuds	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	40
Sand	(gritty)	25
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S30	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 4:00	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.740687	<b>Long.</b> -79.051151	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S30-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 55
	<input type="checkbox"/> 40 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: <u>sweet birch, chestnut oak, red oak, red maple, mountain laurel, greenbrier, intermediate wood fern</u>

<b>Instream Features</b>	<b>Average Stream Width</b> 8 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 2 in.	<input type="checkbox"/> Partly open	80 % Riffle
	<b>High Water Mark</b> 4 in.	<input checked="" type="checkbox"/> Partly shaded	10 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>Caddisfly, mayfly</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	20
Cobble	2.5" - 10"	30
Gravel	0.1" - 2.5"	15
Sand	(gritty)	20
Silt		15
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	30
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S31	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 5:10	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.733640	<b>Long.</b> -79.055473	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S31-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 55 _____
	<input type="checkbox"/> 80 % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input checked="" type="checkbox"/> Trees	<input checked="" type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	_____			
	Eastern hemlock, beech, black cherry, hombeam, shagbark hickory, garlic mustard, woodfern, grapevine				

<b>Instream Features</b>	<b>Average Stream Width</b>	2-3 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	70 % Riffle
	<b>Average Stream Depth</b>	1 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> Shaded	30 % Run	
	<b>High Water Mark</b>	3 in.	<input type="checkbox"/> Shaded	<input type="checkbox"/> None	0 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Stonefly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	50
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	15
Sand	(gritty)	25
Silt		0
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	20
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S32	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 5:15	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.737939	<b>Long.</b> -79.056432	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S32-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 50 _____
	50 _____ <input type="checkbox"/> % cloud cover	<input checked="" type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny		

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>		<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial	<input type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: gravel road	
	Local Watershed NPS Pollution: siltation and roadway runoff		

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input checked="" type="checkbox"/> Trees	<input checked="" type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	Eastern hemlock, rhododendron, violet, green foxtail, smooth bedstraw			

<b>Instream Features</b>	<b>Average Stream Width</b>	60 _____ ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	10 _____ % Riffle
	<b>Average Stream Depth</b>	12 _____ in.	<input type="checkbox"/> Partly shaded		70 _____ % Run	
	<b>High Water Mark</b>	24 _____ in.	<input type="checkbox"/> Shaded		20 _____ % Pool	
	<b>Sampling Reach Length</b>	50 _____ ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input checked="" type="checkbox"/> Fish	<input checked="" type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Stonefly, mayfly, caddisfly, midges, water penny, trout	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		5
Boulder	> 10"	50
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	15
Sand	(gritty)	5
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S33	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 4:40	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.732664	<b>Long.</b> -79.056049	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S33-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	50 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: Eastern hemlock, beech, rhododendron, violet, trout lily, two leaved toothwort

<b>Instream Features</b>	<b>Average Stream Width</b>	6-8 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	0 % Riffle
	<b>Average Stream Depth</b>	2-6 in.	<input type="checkbox"/> Partly shaded		70 % Run	
	<b>High Water Mark</b>	3 in.	<input type="checkbox"/> Shaded		30 % Pool	
	<b>Sampling Reach Length</b>	100 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input checked="" type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Midge, caddisfly, wood frogs	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: River overflow

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	25
Gravel	0.1" - 2.5"	10
Sand	(gritty)	10
Silt		50
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S34	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 5:00	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.734453	<b>Long.</b> -79.057502	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S34-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 50
	50 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input checked="" type="checkbox"/> Trees	<input type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	Eastern hemlock			

<b>Instream Features</b>	<b>Average Stream Width</b>	6-8 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	80 % Riffle
	<b>Average Stream Depth</b>	1 in.	<input type="checkbox"/> Partly shaded		10 % Run	
	<b>High Water Mark</b>	3 in.	<input checked="" type="checkbox"/> Shaded		10 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Midge, caddisfly, mayfly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	20
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	15
Sand	(gritty)	40
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	40
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0



# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S36	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 4:55	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.731784	<b>Long.</b> -79.055734	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S36-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	50	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input checked="" type="checkbox"/> None <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Yellow birch, Eastern hemlock, rhododendron, trout lilly, woodfern

<b>Instream Features</b>	<b>Average Stream Width</b>	1 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	_____ % Riffle
	<b>Average Stream Depth</b>	0 in.	<input type="checkbox"/> Partly shaded	_____ % Run		
	<b>High Water Mark</b>	1 in.	<input type="checkbox"/> Shaded	_____ % Pool		
	<b>Sampling Reach Length</b>	20 ft.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Stream overflow

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	20
Cobble	2.5" - 10"	0
Gravel	0.1" - 2.5"	0
Sand	(gritty)	60
Silt		20
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S38	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 8:40	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.726409	<b>Long.</b> -79.066728	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S38-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 45 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: old strip mine
	Local Watershed NPS Pollution: _____	Former strip mine _____

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: _____ <small>Sweet birch, Eastern hemlock, red oak, serviceberry, mountain laurel, skunk cabbage, swamp dewberry, sedges</small>

<b>Instream Features</b>	<b>Average Stream Width</b> 5 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 3 in.	<input type="checkbox"/> Partly open	50 % Riffle
	<b>High Water Mark</b> 5 in.	<input checked="" type="checkbox"/> Partly shaded	30 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input type="checkbox"/> Shaded	20 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Caddisfly, midge, stonefly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	40
Sand	(gritty)	20
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	5
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S38A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 9:20	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.726431	<b>Long.</b> -79.066680	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S38A-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 46
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>		<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial	<input checked="" type="checkbox"/> None
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: old strip mine	
Local Watershed NPS Pollution: _____			

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input type="checkbox"/> Trees	<input checked="" type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input checked="" type="checkbox"/> Herbaceous
	Dominant Species:	Sweet birch, red oak, mountain laurel soft rush, swamp dewberry, violets, goldenrods			

<b>Instream Features</b>	<b>Average Stream Width</b>	3 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	20 % Riffle
	<b>Average Stream Depth</b>	0-2 in.	<input checked="" type="checkbox"/> Partly shaded	<input type="checkbox"/> Shaded	0 % Run	
	<b>High Water Mark</b>	3 in.	<input type="checkbox"/> None	<input type="checkbox"/> N/A	80 % Pool	
	<b>Sampling Reach Length</b>	20 ft.				

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Midge, mosquito	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Runoff from uplands/road

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	0
Gravel	0.1" - 2.5"	5
Sand	(gritty)	15
Silt		50
Clay	(slick)	30

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	80
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S38B	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 9:20	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.726314	<b>Long.</b> -79.066798	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S38B-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 46
	<input type="checkbox"/> % cloud cover	50	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: old strip mine
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: <u>Beech, black cherry, quaking aspen, witch hazel, mountain laurel, wood fern, sedge, aster</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	2 ft.	<input checked="" type="checkbox"/> Partly open	0 % Riffle
	<b>Average Stream Depth</b>	<input type="checkbox"/> Partly shaded	100 % Run
	3 in.	<input type="checkbox"/> Shaded	0 % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	1 in.		
	10 ft.		
	<b>Sampling Reach Length</b>		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Pipe (AMD?)

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input checked="" type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input checked="" type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Other: Iron Flocculations

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	40
Gravel	0.1" - 2.5"	30
Sand	(gritty)	20
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S38C	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 9:00	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.727364	<b>Long.</b> -79.066961	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S38C-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 46 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>		<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial	<input type="checkbox"/> None
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial	<input checked="" type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: old strip mine	
	Local Watershed NPS Pollution: _____		Mine drainage: _____

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>			
	<input checked="" type="checkbox"/> Trees	<input checked="" type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species: Sweet birch, red oak, mountain laurel, swamp dewberry, sedges			

<b>Instream Features</b>	<b>Average Stream Width</b>	4 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	50 % Riffle
	<b>Average Stream Depth</b>	0-2 in.	<input checked="" type="checkbox"/> Partly shaded	<input type="checkbox"/> Shaded	0 % Run	
	<b>High Water Mark</b>	6 in.	<input type="checkbox"/> Shaded	<input type="checkbox"/> Shaded	50 % Pool	
	<b>Sampling Reach Length</b>	30 ft.	<input type="checkbox"/> None	<input type="checkbox"/> None	N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Overland flow/runoff

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Other: Iron flocculations, AMD

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	30
Sand	(gritty)	30
Silt		25
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	75
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S39	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 10:30	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.726509	<b>Long.</b> -79.075156	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S39-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 51
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: Old mine
	Local Watershed NPS Pollution:	Acid mine drainage from tributaries

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: Eastern hemlock, shagbark hickory, sugar maple, J. barberry, swamp dewberry, meadow-rue, goldenrod, aster, buttercup, sedges

<b>Instream Features</b>	<b>Average Stream Width</b> 20 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 5 in.	<input type="checkbox"/> Partly open	20 % Riffle
	<b>High Water Mark</b> 12 in.	<input checked="" type="checkbox"/> Partly shaded	60 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input type="checkbox"/> Shaded	20 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input checked="" type="checkbox"/> Fish	<input checked="" type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	caddisfly, midge, mayfly, dace, chubs	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		5
Boulder	> 10"	20
Cobble	2.5" - 10"	40
Gravel	0.1" - 2.5"	20
Sand	(gritty)	10
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	5
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S39	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/26/2023	<b>Time:</b> 5:40	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.726509	<b>Long.</b> -79.075156	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S39-DP2			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 55 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input checked="" type="checkbox"/> None <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Yellow birch, Eastern hemlock, rhododendron, white wood aster, partridgeberry

<b>Instream Features</b>	<b>Average Stream Width</b>	20-25 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	40 % Riffle
	<b>Average Stream Depth</b>	6 in.	<input type="checkbox"/> Partly shaded		50 % Run	
	<b>High Water Mark</b>	10 in.	<input checked="" type="checkbox"/> Shaded		10 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input checked="" type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	caddifly, mayfly, stonefly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	40
Cobble	2.5" - 10"	25
Gravel	0.1" - 2.5"	20
Sand	(gritty)	10
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	5
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S39A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 11:00	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.726509	<b>Long.</b> -79.075156	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S39A-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Eastern hemlock, hawthorne, shagbark hickory, sweet birch, witch hazel

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	2-3 ft.	<input type="checkbox"/> Partly open	_____ % Riffle
	<b>Average Stream Depth</b>	<input checked="" type="checkbox"/> Partly shaded	_____ % Run
	0 in.	<input type="checkbox"/> Shaded	_____ % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A
	5 in.		
	<b>Sampling Reach Length</b>		
	50 ft.		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		
None <input checked="" type="checkbox"/>			

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: runoff

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
Not Applicable <input checked="" type="checkbox"/>			

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	25
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	10
Sand	(gritty)	5
Silt		40
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0



# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S39C	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 11:00	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.729050	<b>Long.</b> -79.076333	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S39C-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 65
	<input type="checkbox"/> % cloud cover	50	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: Red maple, black alder, black willow, yellow birch, multiflora rose, NY aster, stiltgrass, goldenrod, sedge, curly dock

<b>Instream Features</b>	<b>Average Stream Width</b>	6 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	0 % Riffle
	<b>Average Stream Depth</b>	8 in.	<input checked="" type="checkbox"/> Partly shaded		0 % Run	
	<b>High Water Mark</b>	8 in.	<input type="checkbox"/> Shaded		100 % Pool	
	<b>Sampling Reach Length</b>	30 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input checked="" type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Midges, water boatmen, tadpoles, fish	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Stream backwater/overflow channel

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	30
Sand	(gritty)	40
Silt		20
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	15
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S39D	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 11:10	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.729109	<b>Long.</b> -79.076448	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S39D-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 65
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Eastern hemlock, black cherry, sweet birch, rhododendron, jewelweed, multiflora rose, sedge

<b>Instream Features</b>	<b>Average Stream Width</b>	10 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	30 % Riffle
	<b>Average Stream Depth</b>	2 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	<b>High Water Mark</b>	5 in.	<input checked="" type="checkbox"/> Shaded		70 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input checked="" type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	Midges, salamanders	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: overflow channel

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Other: iron flocculations (stagnant)

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	15
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	20
Sand	(gritty)	15
Silt		30
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	40
Muck-Mud	black, very fine organic	10
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S41	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/15/2023	<b>Time:</b> 10:20	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.745169	<b>Long.</b> -79.055551	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S41-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Eastern hemlock, yellow birch, rhododendron, sugar maple

<b>Instream Features</b>	<b>Average Stream Width</b> 15 ft.	<b>Canopy Cover</b> <input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b> 100 % Riffle
	<b>Average Stream Depth</b> 4 in.	<input type="checkbox"/> Partly shaded	0 % Run
	<b>High Water Mark</b> 18 in.	<input type="checkbox"/> Shaded	0 % Pool
	<b>Sampling Reach Length</b> 50 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	caddisfly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: overflow channel

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Other: iron flocculations

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	5
Gravel	0.1" - 2.5"	5
Sand	(gritty)	30
Silt		50
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S42	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/15/2023	<b>Time:</b> 10:30	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.744487	<b>Long.</b> -79.055805	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S42-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: Waterline
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Eastern hemlock, yellow birch, rhododendron, sugar maple, striped maple

<b>Instream Features</b>	<b>Average Stream Width</b> 8 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 2 in.	<input type="checkbox"/> Partly open	60 % Riffle
	<b>High Water Mark</b> 4 in.	<input type="checkbox"/> Partly shaded	30 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input checked="" type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	caddisfly, midge	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	5
Gravel	0.1" - 2.5"	15
Sand	(gritty)	50
Silt		25
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	20
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S43 and S43A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/15/2023	<b>Time:</b> 9:30	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.744002	<b>Long.</b> -79.054207	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S43-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 55
	75 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: gravel road
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Eastern hemlock, sweet birch, rhododendron, sugar maple, chestnut oak, wood fern

<b>Instream Features</b>	<b>Average Stream Width</b>	2 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	30 % Riffle
	<b>Average Stream Depth</b>	2 in.	<input type="checkbox"/> Partly shaded		60 % Run	
	<b>High Water Mark</b>	3 in.	<input checked="" type="checkbox"/> Shaded		10 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	caddisfly, midge, mayfly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	20
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	30
Sand	(gritty)	30
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S44	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/15/2023	<b>Time:</b> 9:20	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.744154	<b>Long.</b> -79.054052	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S44-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: _____ Eastern hemlock, sweet birch, beech, sassafras, sugar maple, witch hazel, raspberry, golden ragwort, christmas fern, greenbrier

<b>Instream Features</b>	<b>Average Stream Width</b> 6 ft.	<b>Canopy Cover</b> <input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b> 85 % Riffle
	<b>Average Stream Depth</b> 2 in.	<input type="checkbox"/> Partly shaded	10 % Run
	<b>High Water Mark</b> 3 in.	<input type="checkbox"/> Shaded	5 % Pool
	<b>Sampling Reach Length</b> 60 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input checked="" type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	caddisfly, midge, mayfly, frogs, salamanders	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	30
Gravel	0.1" - 2.5"	20
Sand	(gritty)	35
Silt		5
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S45 and S45A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/15/2023	<b>Time:</b> 10:45	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.743754	<b>Long.</b> -79.056210	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S45-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: Eastern hemlock, yellow birch, sugar maple, red oak, rhododendron, wood fern

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	4 _____ ft.	<input type="checkbox"/> Partly open	50 _____ % Riffle
	<b>Average Stream Depth</b>	<input checked="" type="checkbox"/> Partly shaded	40 _____ % Run
	2 _____ in.	<input type="checkbox"/> Shaded	10 _____ % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	3 _____ in.		
	20 _____ ft.		
	<b>Sampling Reach Length</b>		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	caddisfly, sowbugs	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	30
Sand	(gritty)	40
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	15
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S46 and S46A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/15/2023	<b>Time:</b> 2:50	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.744986	<b>Long.</b> -79.062204	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S46-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 71
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input checked="" type="checkbox"/> Trees	<input type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	Sweet birch, sugar maple, green ash, multiflora rose, J. barberry, stinging nettle, blue cohosh, rough bedstraw			

<b>Instream Features</b>	<b>Average Stream Width</b>	3 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	0 % Riffle
	<b>Average Stream Depth</b>	0 in.	<input type="checkbox"/> Partly shaded		100 % Run	
	<b>High Water Mark</b>	6 in.	<input type="checkbox"/> Shaded		0 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	Stonefly, caddisfly, mayfly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	20
Cobble	2.5" - 10"	40
Gravel	0.1" - 2.5"	20
Sand	(gritty)	10
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0



# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S46B	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 5/15/2023	<b>Time:</b> 2:40	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.745404	<b>Long.</b> -79.061928	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S46B			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 70 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other: Precipitation
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: <u>Sugar maple, sweet birch, Japanese barberry, stinging nettle, jewelweed, blue cohosh</u>

<b>Instream Features</b>	<b>Average Stream Width</b> <u>2</u> ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> <u>0</u> in.	<input type="checkbox"/> Partly open	<input type="checkbox"/> % Riffle
	<b>High Water Mark</b> <u>2</u> in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> % Run
	<b>Sampling Reach Length</b> <u>20</u> ft.	<input checked="" type="checkbox"/> Shaded	<input type="checkbox"/> % Pool
		<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Precipitation

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	40
Sand	(gritty)	10
Silt		25
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	5
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S47	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 5/15/2023	<b>Time:</b> 3:20	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.743681	<b>Long.</b> -79.066122	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S47-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 80 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>		<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial	<input type="checkbox"/> None
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:	<input checked="" type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other: Precipitation	
Local Watershed NPS Pollution: _____			

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>	<input checked="" type="checkbox"/> Trees	<input type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	sugar maple, black cherry, red oak, sweet birch, cucumber magnolia, multiflora rose, Japanese barberry			

<b>Instream Features</b>	<b>Average Stream Width</b>	4 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	<input type="checkbox"/> % Riffle
	<b>Average Stream Depth</b>	0 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> % Run		
	<b>High Water Mark</b>	6-24 in.	<input checked="" type="checkbox"/> Shaded	<input type="checkbox"/> % Pool		
	<b>Sampling Reach Length</b>	N/A ft.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		
None <input checked="" type="checkbox"/>			

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Precipitation

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
Not Applicable <input checked="" type="checkbox"/>			

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	30
Sand	(gritty)	5
Silt		10
Clay	(slick)	30

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S48	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/15/2023	<b>Time:</b> 4:50	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.741142	<b>Long.</b> -79.074579	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S48-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 71
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: runoff from horse farm	<input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: sugar maple, shagbark hickory, green ash, sweet birch, multiflora rose, Japanese barberry

<b>Instream Features</b>	<b>Average Stream Width</b> 4 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 2 in.	<input type="checkbox"/> Partly open	60 % Riffle
	<b>High Water Mark</b> 6 in.	<input checked="" type="checkbox"/> Partly shaded	30 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	caddisfly, maybly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	20
Cobble	2.5" - 10"	30
Gravel	0.1" - 2.5"	20
Sand	(gritty)	15
Silt		10
Clay	(slick)	5

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	5
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S50 and Stream S50A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/15/2023	<b>Time:</b> 5:00	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.739550	<b>Long.</b> -79.076955	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S50-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 80 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>sweet birch, red oak, witch hazel, red maple, hickory, multiflora rose, blackberry</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	4 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	10 % Riffle
	<b>Average Stream Depth</b>	2 in.	<input type="checkbox"/> Partly shaded		90 % Run	
	<b>High Water Mark</b>	2 in.	<input type="checkbox"/> Shaded		0 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input checked="" type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	<u>caddisfly, scud, salamander</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	45
Gravel	0.1" - 2.5"	10
Sand	(gritty)	45
Silt		0
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S51	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 12:50	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.733230	<b>Long.</b> -79.076399	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S51-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 58
	<input type="checkbox"/> 20 % cloud cover	<input type="checkbox"/> 30	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: black cherry, red maple, shagbark hickory, white oak, multiflora rose, Japanese barberry

<b>Instream Features</b>	<b>Average Stream Width</b> 6 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 1 in.	<input type="checkbox"/> Partly open	80 % Riffle
	<b>High Water Mark</b> 4 in.	<input type="checkbox"/> Partly shaded	10 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input checked="" type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	scuds, caddisfly, water beetles	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		35
Boulder	> 10"	10
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	20
Sand	(gritty)	10
Silt		15
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S51A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 12:50	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.733849	<b>Long.</b> -79.076294	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S51A-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: black cherry, sugar maple, multiflora rose, May apple, garlic mustard, common violet

<b>Instream Features</b>	<b>Average Stream Width</b>	2.5 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	_____ % Riffle
	<b>Average Stream Depth</b>	0 in.	<input type="checkbox"/> Partly shaded	_____ % Run		
	<b>High Water Mark</b>	2 in.	<input type="checkbox"/> Shaded	_____ % Pool		
	<b>Sampling Reach Length</b>	30 ft.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Precipitation

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	30
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	10
Sand	(gritty)	5
Silt		45
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S52	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 1:00	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.733116	<b>Long.</b> -79.076461	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S52-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 58
	<input type="checkbox"/> 20 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: <u>red oak, black cherry, cucumber magnolia, American hophornbeam, aster species, viola species</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	2 ft.	<input type="checkbox"/> Partly open	100 % Riffle
	<b>Average Stream Depth</b>	<input type="checkbox"/> Partly shaded	0 % Run
	1 in.	<input checked="" type="checkbox"/> Shaded	0 % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	4 in.		
	50 ft.		
	<b>Sampling Reach Length</b>		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input checked="" type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>adult midges, water beetles</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	5
Gravel	0.1" - 2.5"	10
Sand	(gritty)	10
Silt		35
Clay	(slick)	40

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	50
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S53	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 11:40	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.731872	<b>Long.</b> -79.076618	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S53-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 56
	<input type="checkbox"/> 20 % cloud cover	<input type="checkbox"/> 40	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: sweet birch, cucumber magnolia, red maple, smooth bedstraw, white avens, golden ragwort

<b>Instream Features</b>	<b>Average Stream Width</b>	8 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	50 % Riffle
	<b>Average Stream Depth</b>	1 in.	<input checked="" type="checkbox"/> Partly shaded		20 % Run	
	<b>High Water Mark</b>	6 in.	<input type="checkbox"/> Shaded		30 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input checked="" type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	caddisfly, stonefly, midge adults	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		5
Boulder	> 10"	10
Cobble	2.5" - 10"	20
Gravel	0.1" - 2.5"	40
Sand	(gritty)	15
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0



# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S53A	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 12:30	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.732866	<b>Long.</b> -79.075053	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S53A-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 58
	<input type="checkbox"/> 20 % cloud cover	<input type="checkbox"/> 40	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: eastern hemlock, red oak, black cherry, pine, American hornbeam, golden ragwort

<b>Instream Features</b>	<b>Average Stream Width</b> 8 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 2 in.	<input checked="" type="checkbox"/> Partly open	70 % Riffle
	<b>High Water Mark</b> 4 in.	<input type="checkbox"/> Partly shaded	15 % Run
	<b>Sampling Reach Length</b> 100 ft.	<input type="checkbox"/> Shaded	15 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input checked="" type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	caddisfly, mayfly	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		10
Boulder	> 10"	10
Cobble	2.5" - 10"	30
Gravel	0.1" - 2.5"	25
Sand	(gritty)	15
Silt		5
Clay	(slick)	5

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	15
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S54	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 10:50	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.729256	<b>Long.</b> -79.076594	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S54-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 52
	<input type="checkbox"/> 10 % cloud cover	<input type="checkbox"/> 40	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: yellow birch, eastern hemlock, black cherry, American beech, sweet birch, viola sp.

<b>Instream Features</b>	<b>Average Stream Width</b>	10 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	50 % Riffle
	<b>Average Stream Depth</b>	1 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	<b>High Water Mark</b>	6 in.	<input checked="" type="checkbox"/> Shaded		50 % Pool	
	<b>Sampling Reach Length</b>	100 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input checked="" type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	frog, midge adults	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Other: Some iron floc in stagnant water

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	25
Cobble	2.5" - 10"	25
Gravel	0.1" - 2.5"	20
Sand	(gritty)	15
Silt		15
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	50
Muck-Mud	black, very fine organic	10
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S55	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 10:30	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.730282	<b>Long.</b> -79.077640	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S55-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 55
	<input type="checkbox"/> % cloud cover	50	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: American beech, black cherry, red maple, eastern hemlock, skunk cabbage, club moss

<b>Instream Features</b>	<b>Average Stream Width</b>	2.5 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	<input type="checkbox"/> % Riffle
	<b>Average Stream Depth</b>	0 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> % Run		
	<b>High Water Mark</b>	3.5 in.	<input type="checkbox"/> Shaded	<input type="checkbox"/> % Pool		
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: Precipitation

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	40
Cobble	2.5" - 10"	60
Gravel	0.1" - 2.5"	0
Sand	(gritty)	0
Silt		0
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	30
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S56	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/27/2023	<b>Time:</b> 10:15	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.729700	<b>Long.</b> -79.077662	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S56-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 51
	<input type="checkbox"/> 10 % cloud cover	<input type="checkbox"/> 40	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: acid mine drainage	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: eastern hemlock, American hornbeam, shagbark hickory, marsh marigold, sedge species

<b>Instream Features</b>	<b>Average Stream Width</b> 6 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 2 in.	<input type="checkbox"/> Partly open	40 % Riffle
	<b>High Water Mark</b> 5 in.	<input checked="" type="checkbox"/> Partly shaded	50 % Run
	<b>Sampling Reach Length</b> 60 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input checked="" type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	scuds	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: piped spring flow

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> Stained orange tint due to assumed
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other: AMD

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	25
Sand	(gritty)	35
Silt		15
Clay	(slick)	10

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	50
Muck-Mud	black, very fine organic	10
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S57	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 9:00	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.775793	<b>Long.</b> -79.032469	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S57-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 40 _____
	<input type="checkbox"/> % cloud cover	50	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: red oak, black cherry, red maple, witch hazel, false Solomon seal, gooseberry

<b>Instream Features</b>	<b>Average Stream Width</b>	2.5 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	100 % Riffle
	<b>Average Stream Depth</b>	2 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	<b>High Water Mark</b>	3 in.	<input checked="" type="checkbox"/> Shaded		0 % Pool	
	<b>Sampling Reach Length</b>	60 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	stonefly nymph, scud, crayfish	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	50
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	10
Sand	(gritty)	0
Silt		30
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

Feature originates at a seep and is perennial for several feet before the flow diminishes.

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S58	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 4/25/2023	<b>Time:</b> 10:00	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.757717	<b>Long.</b> -79.041785	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
<b>GPS Point Name:</b> S58-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 40 _____
	30 _____ % cloud cover	50 _____	<b>Other:</b> _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Moderate
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: black cherry, red male, red oak, violet species

<b>Instream Features</b>	<b>Average Stream Width</b>	10 _____ ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	20 _____ % Riffle
	<b>Average Stream Depth</b>	1.5 _____ in.	<input type="checkbox"/> Partly shaded		80 _____ % Run	
	<b>High Water Mark</b>	1 _____ in.	<input type="checkbox"/> Shaded		0 _____ % Pool	
	<b>Sampling Reach Length</b>	50 _____ ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input checked="" type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	caddisfly, sowbug	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	20
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	10
Sand	(gritty)	40
Silt		15
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S59	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/16/2023	<b>Time:</b> 11:30	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.723276	<b>Long.</b> -79.076616	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S59-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60
	40 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input checked="" type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution:	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: sugar maple, sweet birch, green ash, multiflora rose, jewelweed, sweet vernal grass

<b>Instream Features</b>	<b>Average Stream Width</b>	3 ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	80 % Riffle
	<b>Average Stream Depth</b>	0 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	<b>High Water Mark</b>	5 in.	<input type="checkbox"/> Shaded		20 % Pool	
	<b>Sampling Reach Length</b>	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input checked="" type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	crayfish burrows	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	5
Gravel	0.1" - 2.5"	10
Sand	(gritty)	15
Silt		50
Clay	(slick)	15

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	20
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S60	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/16/2023	<b>Time:</b> 1:40	<b>Watershed:</b> Miller Run	
<b>Lat.</b> 39.796513	<b>Long.</b> -79.037050	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S60-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 69
	<input type="checkbox"/> 90 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:
	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution:	roadway litter and runoff

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input checked="" type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: Black cherry, deer vetch, lance leaf plantain, Fuller's teasel, fowl blue grass, sugar maple, silky dogwood

<b>Instream Features</b>	<b>Average Stream Width</b>	0.5 ft.	<b>Canopy Cover</b>	<input type="checkbox"/> Partly open	<b>Morphology Types</b>	80 % Riffle
	<b>Average Stream Depth</b>	1 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	<b>High Water Mark</b>	5 in.	<input type="checkbox"/> Shaded		20 % Pool	
	<b>Sampling Reach Length</b>	20 ft.	<input checked="" type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	leeches	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	50
Sand	(gritty)	15
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	15
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0



# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S61	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/16/2023	<b>Time:</b> 2:30	<b>Watershed:</b> Miller Run	
<b>Lat.</b> 39.798571	<b>Long.</b> -79.036477	<b>Investigators:</b> C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S61-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 68
	<input type="checkbox"/> 100 % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:
	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: roadway runoff	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: golden ragwort, goldenrod species, crown vetch, smooth bedstraw, oxeye daisy

<b>Instream Features</b>	<b>Average Stream Width</b> 5 ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> 2 in.	<input type="checkbox"/> Partly open	60 % Riffle
	<b>High Water Mark</b> 10 in.	<input type="checkbox"/> Partly shaded	10 % Run
	<b>Sampling Reach Length</b> 50 ft.	<input type="checkbox"/> Shaded	30 % Pool
		<input checked="" type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input checked="" type="checkbox"/> Attached Algae	caddisfly, midges	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input checked="" type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	15
Sand	(gritty)	10
Silt		50
Clay	(slick)	5

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S63	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 5/19/2023	<b>Time:</b> 11:30	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.789998	<b>Long.</b> -79.035289	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S63-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input checked="" type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input checked="" type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>sugar maple, smooth bedstraw, jewelweed, reed canarygrass, horsetail, willowherb</u>

<b>Instream Features</b>	<b>Average Stream Width</b> <u>2</u> ft.	<b>Canopy Cover</b>	<b>Morphology Types</b>
	<b>Average Stream Depth</b> <u>1</u> in.	<input type="checkbox"/> Partly open	<u>40</u> % Riffle
	<b>High Water Mark</b> <u>2</u> in.	<input checked="" type="checkbox"/> Partly shaded	<u>40</u> % Run
	<b>Sampling Reach Length</b> <u>60</u> ft.	<input type="checkbox"/> Shaded	<u>20</u> % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>crayfish, nematode</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
	Ephemeral at drain; perennial for remainder of channel		<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	30
Gravel	0.1" - 2.5"	30
Sand	(gritty)	10
Silt		30
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S64	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/19/2023	<b>Time:</b> 12:00	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.788667	<b>Long.</b> -79.035300	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S64-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 80 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>sugar maple, red maple, green ash, honey suckle, Kentucky bluegrass, orchard grass</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	1.5 ft.	<input type="checkbox"/> Partly open	0 % Riffle
	<b>Average Stream Depth</b>	<input checked="" type="checkbox"/> Partly shaded	100 % Run
	<1 in.	<input type="checkbox"/> Shaded	0 % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	4 in.		
	100 ft.		
	<b>Sampling Reach Length</b>		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>crayfish burrows, mayfly, midges</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input checked="" type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	50
Sand	(gritty)	20
Silt		20
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S65	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/31/2023	<b>Time:</b> 8:00	<b>Watershed:</b> Casselman River	
<b>Lat.</b> 39.786414	<b>Long.</b> -79.034293	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S65-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>sugar maple, black locust, morrow honeysuckle, blackberry, multiflora rose, May apple</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	4 _____ ft.	<b>Canopy Cover</b>	<input checked="" type="checkbox"/> Partly open	<b>Morphology Types</b>	0 _____ % Riffle
	<b>Average Stream Depth</b>	<1 _____ in.	<input type="checkbox"/> Partly shaded		100 _____ % Run	
	<b>High Water Mark</b>	3 _____ in.	<input type="checkbox"/> Shaded		0 _____ % Pool	
	<b>Sampling Reach Length</b>	10 _____ ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>caddisfly, leeches</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	50
Sand	(gritty)	30
Silt		10
Clay	(slick)	0

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S66	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
<b>Date:</b> 5/31/2023	<b>Time:</b> 10:25	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.732688	<b>Long.</b> -79.058045	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S66-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 65
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b>
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: Right of Way
	Local Watershed NPS Pollution: _____	

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input checked="" type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: <u>sweet vernal grass, orchard grass, sugar maple, jewelweed, colts foot</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	2 ft.	<input type="checkbox"/> Partly open	20 % Riffle
	<b>Average Stream Depth</b>	<input checked="" type="checkbox"/> Partly shaded	80 % Run
	<1 in.	<input type="checkbox"/> Shaded	0 % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	5 in.		
	70 ft.		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input checked="" type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae	<u>caddis fly, scuds, mayfly</u>	

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input type="checkbox"/> Wetland
	<input checked="" type="checkbox"/> Intermittent	<input checked="" type="checkbox"/> Cold Water	<input checked="" type="checkbox"/> Spring fed
	<input type="checkbox"/> Ephemeral	<input type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input checked="" type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input checked="" type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globes	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	0
Cobble	2.5" - 10"	5
Gravel	0.1" - 2.5"	60
Sand	(gritty)	20
Silt		10
Clay	(slick)	5

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	15
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S67	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 5-31-2023	<b>Time:</b> 4:50	<b>Watershed:</b> Meadow Run	
<b>Lat.</b> 39.727925	<b>Long.</b> -79.062785	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S67-DP			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 80 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input checked="" type="checkbox"/> None
		<input type="checkbox"/> Moderate
		<input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>sweet birch, chestnut oak, cucumber magnolia, witch hazel mountail laurel, red maple</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	4 ft.	<input checked="" type="checkbox"/> Partly open	_____ % Riffle
	<b>Average Stream Depth</b>	<input type="checkbox"/> Partly shaded	_____ % Run
	0 in.	<input type="checkbox"/> Shaded	_____ % Pool
	4 in.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A
	<b>Sampling Reach Length</b>		
	60 ft.		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		
None <input checked="" type="checkbox"/>			

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input type="checkbox"/> Other:

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globbs	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
Not Applicable <input checked="" type="checkbox"/>			

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	10
Cobble	2.5" - 10"	10
Gravel	0.1" - 2.5"	0
Sand	(gritty)	0
Silt		30
Clay	(slick)	50

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	0
Muck-Mud	black, very fine organic	0
Marl	grey, shell fragments	0

# STREAM CHARACTERIZATION DATA SHEET

<b>Project:</b> US 219 Meyersdale		<b>Stream ID:</b> Stream S68	
<b>Township:</b> Summit and Elk Lick	<b>County:</b> Somerset	<b>Classification:</b> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
<b>Date:</b> 6/2/2023	<b>Time:</b> 8:40	<b>Watershed:</b> Piney Creek	
<b>Lat.</b> 39.731749	<b>Long.</b> -79.059231	<b>Investigators:</b> C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
<b>GPS Point Name:</b> S68-DP1			

<b>Weather Conditions</b>	<b>Now</b>	<b>Past 24 hr</b>	<b>Heavy rain in the last 7 days?</b>
	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/>	
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	<b>Air Temp:</b> 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	<b>Other:</b> _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

<b>Watershed Features</b>	<b>Predominant Surrounding Landuse</b>	<b>Local Watershed Erosion</b>
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Roadway:
	<input type="checkbox"/> Residential	<input type="checkbox"/> Other:
	Local Watershed NPS Pollution: _____	<input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy

<b>Riparian Vegetation (% Composition)</b>	<b>Dominant Type</b>
	<input type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>witch hazel, sweet birch, black raspberry, red oak, red maple, sugar maple, wood fern</u>

<b>Instream Features</b>	<b>Average Stream Width</b>	<b>Canopy Cover</b>	<b>Morphology Types</b>
	2.5 ft.	<input type="checkbox"/> Partly open	_____ % Riffle
	<b>Average Stream Depth</b>	<input type="checkbox"/> Partly shaded	_____ % Run
	0 in.	<input checked="" type="checkbox"/> Shaded	_____ % Pool
	<b>High Water Mark</b>	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A
	4 in.		
	<b>Sampling Reach Length</b>		
	40 ft.		

<b>Aquatic Vegetation, Biota &amp; Habitat</b>	<b>Aquatic Vegetation</b>	<b>Aquatic Biota</b>	<b>Habitat</b>
	<input type="checkbox"/> Rooted Emergent	<input type="checkbox"/> Macrophytes	<input type="checkbox"/> Large woody debris
	<input type="checkbox"/> Rooted Submergent	<input type="checkbox"/> Macroinvertebrates	<input type="checkbox"/> Submerged Macrophytes
	<input type="checkbox"/> Rooted Floating	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetated banks
	<input type="checkbox"/> Free Floating	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
	<input type="checkbox"/> Floting Algae	<b>Taxa:</b>	
	<input type="checkbox"/> Attached Algae		
None <input checked="" type="checkbox"/>			

<b>Stream Characterization</b>	<b>Subsystem</b>	<b>Stream Type</b>	<b>Origin</b>
	<input type="checkbox"/> Perennial	<input type="checkbox"/> Warm Water	<input checked="" type="checkbox"/> Wetland
	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Spring fed
	<input checked="" type="checkbox"/> Ephemeral	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Mixture of origins
			<input checked="" type="checkbox"/> Other: overland flow

<b>Water Quality</b>	<b>Water Odors</b>	<b>Water Surface Oils</b>	<b>Turbidity (if not measured)</b>
	<input type="checkbox"/> Normal/None	<input type="checkbox"/> Slick	<input type="checkbox"/> Clear
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sheen	<input type="checkbox"/> Slightly Turbid
	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Globos	<input type="checkbox"/> Turbid
	<input type="checkbox"/> Chemical	<input type="checkbox"/> Flecks	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Fishy	<input type="checkbox"/> None	<input type="checkbox"/> Stained
	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
Not Applicable <input checked="" type="checkbox"/>			

## Inorganic Substrate Components

Substrate Types	Diameter	% Composition
Bedrock		0
Boulder	> 10"	5
Cobble	2.5" - 10"	15
Gravel	0.1" - 2.5"	30
Sand	(gritty)	30
Silt		10
Clay	(slick)	10

## Organic Substrate Components

Substrate Types	Characteristic	% Composition
Detritus	sticks, wood, coarse plant material	10
Muck-Mud	black, very fine organic	5
Marl	grey, shell fragments	0

***Maryland***



# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (FRONT)

STREAM NAME	WL006	LOCATION	Segment 3 Shift
STATION #	RIVERMILE	STREAM CLASS	Use 1
LAT	39.70065	LONG	-79.095841
RIVER BASIN	Youghiogheny		
STORET #	AGENCY MD SHA		
INVESTIGATORS	AK, OS		
FORM COMPLETED BY	AK, OS	DATE	5/15/23
		TIME	1015 AM PM
		REASON FOR SURVEY	US 219 Improvements

	Habitat Parameter	Condition Category			
		Optimal	Suboptimal	Marginal	Poor
Parameters to be evaluated in sampling reach	1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	SCORE 8	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
	SCORE 5	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
	SCORE 7	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
	SCORE 6	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
	SCORE 9	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

Habitat Parameter	Condition Category																				
	Optimal					Suboptimal					Marginal					Poor					
<b>6. Channel Alteration</b>  Channelization or dredging absent or minimal; stream with normal pattern.						Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.					Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.					Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.					
SCORE <b>20</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>7. Frequency of Riffles (or bends)</b>  Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.						Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.					Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.					Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.					
SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>8. Bank Stability (score each bank)</b>  Note: determine left or right side by facing downstream. SCORE <u>9</u> (LB) SCORE <u>9</u> (RB)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.					Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.					Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.					Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.					
Left Bank	10		9			8	7	6			5	4	3			2	1	0			
Right Bank	10		9			8	7	6			5	4	3			2	1	0			
<b>9. Vegetative Protection (score each bank)</b>  More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.						70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.					50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.					Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.					
SCORE <u>9</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>9</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			
<b>10. Riparian Vegetative Zone Width (score each bank riparian zone)</b>  Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.						Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.					Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.					Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.					
SCORE <u>10</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>10</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			

Total Score \_\_\_\_\_

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (FRONT)

STREAM NAME	WL007	LOCATION	Segment 3 DU-E/DU-E Shift
STATION #	RIVERMILE	STREAM CLASS	Use 1
LAT	39.701368	LONG	-79.095785
RIVER BASIN	Youghiogheny		
STORET #	AGENCY MD SHA		
INVESTIGATORS	AK, OS		
FORM COMPLETED BY	AK, OS	DATE	5/15/23
		TIME	1030 AM PM
		REASON FOR SURVEY	US 219 Improvements

	Habitat Parameter	Condition Category			
		Optimal	Suboptimal	Marginal	Poor
Parameters to be evaluated in sampling reach	1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	SCORE 9	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
	SCORE 19	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
	SCORE 6	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
	SCORE 19	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
	SCORE 8	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

Habitat Parameter	Condition Category																				
	Optimal					Suboptimal					Marginal					Poor					
<b>6. Channel Alteration</b>	Channelization or dredging absent or minimal; stream with normal pattern.					Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.					Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.					Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.					
<b>SCORE 18</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>7. Frequency of Riffles (or bends)</b>	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.					Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.					Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.					Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.					
<b>SCORE</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>8. Bank Stability (score each bank)</b>	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.					Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.					Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.					Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.					
Note: determine left or right side by facing downstream.																					
SCORE <u>4</u> (LB)	Left Bank	10	9			8	7	6			5	4	3			2	1	0			
SCORE <u>4</u> (RB)	Right Bank	10	9			8	7	6			5	4	3			2	1	0			
<b>9. Vegetative Protection (score each bank)</b>	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.					70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.					50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.					Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.					
SCORE <u>6</u> (LB)	Left Bank	10	9			8	7	6			5	4	3			2	1	0			
SCORE <u>6</u> (RB)	Right Bank	10	9			8	7	6			5	4	3			2	1	0			
<b>10. Riparian Vegetative Zone Width (score each bank riparian zone)</b>	Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.					Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.					Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.					Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.					
SCORE <u>9</u> (LB)	Left Bank	10	9			8	7	6			5	4	3			2	1	0			
SCORE <u>9</u> (RB)	Right Bank	10	9			8	7	6			5	4	3			2	1	0			

Total Score \_\_\_\_\_

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (FRONT)

STREAM NAME	WL012	LOCATION	Segment 2 DU/E
STATION #	RIVERMILE	STREAM CLASS	Use 1
LAT	39.718019	LONG	-79.083816
RIVER BASIN	Youghiogheny		
STORET #	AGENCY MD SHA		
INVESTIGATORS	AK, OS		
FORM COMPLETED BY	AK, OS	DATE	5/15/23
		TIME	1230 AM PM
		REASON FOR SURVEY	
		US 219 Improvements	

	Habitat Parameter	Condition Category			
		Optimal	Suboptimal	Marginal	Poor
Parameters to be evaluated in sampling reach	1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	SCORE 14	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
	SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
	SCORE 9	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
	SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
	SCORE 15	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

Habitat Parameter	Condition Category																				
	Optimal					Suboptimal					Marginal					Poor					
<b>6. Channel Alteration</b>  Channelization or dredging absent or minimal; stream with normal pattern.						Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.					Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.					Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.					
SCORE <b>13</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>7. Frequency of Riffles (or bends)</b>  Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.						Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.					Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.					Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.					
SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>8. Bank Stability (score each bank)</b>  Note: determine left or right side by facing downstream. SCORE <u>6</u> (LB) SCORE <u>6</u> (RB)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.					Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.					Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.					Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.					
Left Bank	10		9			8	7	6			5	4	3			2	1	0			
Right Bank	10		9			8	7	6			5	4	3			2	1	0			
<b>9. Vegetative Protection (score each bank)</b>  More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.						70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.					50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.					Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.					
SCORE <u>6</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>6</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			
<b>10. Riparian Vegetative Zone Width (score each bank riparian zone)</b>  Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.						Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.					Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.					Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.					
SCORE <u>2</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>2</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			

Total Score \_\_\_\_\_

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (FRONT)

STREAM NAME	WL013	LOCATION	Segment 2 DU/E
STATION #	RIVERMILE	STREAM CLASS	Use 1
LAT	39.71602	LONG	-79.083906
RIVER BASIN	Youghiogheny		
STORET #	AGENCY MD SHA		
INVESTIGATORS	AK, OS		
FORM COMPLETED BY	AK, OS	DATE	5/15/23
		TIME	1215 AM PM
		REASON FOR SURVEY	
		US 219 Improvements	

	Habitat Parameter	Condition Category			
		Optimal	Suboptimal	Marginal	Poor
Parameters to be evaluated in sampling reach	1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	SCORE 11	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
	SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
	SCORE 7	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
	SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
	SCORE 13	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

Habitat Parameter	Condition Category																				
	Optimal					Suboptimal					Marginal					Poor					
<b>6. Channel Alteration</b>  Channelization or dredging absent or minimal; stream with normal pattern.						Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.					Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.					Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.					
SCORE <b>20</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>7. Frequency of Riffles (or bends)</b>  Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.						Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.					Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.					Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.					
SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>8. Bank Stability (score each bank)</b>  Note: determine left or right side by facing downstream. SCORE <u>7</u> (LB) SCORE <u>7</u> (RB)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.					Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.					Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.					Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.					
Left Bank	10		9			8	7	6			5	4	3			2	1	0			
Right Bank	10		9			8	7	6			5	4	3			2	1	0			
<b>9. Vegetative Protection (score each bank)</b>  More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.						70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.					50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.					Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.					
SCORE <u>8</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>8</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			
<b>10. Riparian Vegetative Zone Width (score each bank riparian zone)</b>  Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.						Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.					Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.					Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.					
SCORE <u>10</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>10</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			

Total Score \_\_\_\_\_



# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (FRONT)

STREAM NAME	WL014	LOCATION	Segment 2 DU/E
STATION #	RIVERMILE	STREAM CLASS	Use 1
LAT	39.71896	LONG	-79.082667
RIVER BASIN	Youghiogheny		
STORET #	AGENCY MD SHA		
INVESTIGATORS	AK, OS		
FORM COMPLETED BY	AK, OS	DATE	5/15/23
		TIME	1345 AM PM
		REASON FOR SURVEY	US 219 Improvements

	Habitat Parameter	Condition Category			
		Optimal	Suboptimal	Marginal	Poor
Parameters to be evaluated in sampling reach	1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	SCORE 14	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
	SCORE 17	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
	SCORE 10	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
	SCORE 13	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
	SCORE 15	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

Habitat Parameter	Condition Category																				
	Optimal					Suboptimal					Marginal					Poor					
<b>6. Channel Alteration</b>  Channelization or dredging absent or minimal; stream with normal pattern.						Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.					Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.					Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.					
SCORE <b>13</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>7. Frequency of Riffles (or bends)</b>  Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.						Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.					Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.					Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.					
SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>8. Bank Stability (score each bank)</b>  Note: determine left or right side by facing downstream. SCORE <u>7</u> (LB) SCORE <u>7</u> (RB)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.					Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.					Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.					Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.					
Left Bank	10		9			8	7	6			5	4	3			2	1	0			
Right Bank	10		9			8	7	6			5	4	3			2	1	0			
<b>9. Vegetative Protection (score each bank)</b>  More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.						70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.					50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.					Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.					
SCORE <u>8</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>8</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			
<b>10. Riparian Vegetative Zone Width (score each bank riparian zone)</b>  Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.						Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.					Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.					Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.					
SCORE <u>8</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>8</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			

Total Score \_\_\_\_\_

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (FRONT)

STREAM NAME	WL016	LOCATION	Segment 2 DU/E
STATION #	RIVERMILE	STREAM CLASS	Use 1
LAT	39.719876	LONG	-79.083093
RIVER BASIN	Youghiogheny		
STORET #	AGENCY MD SHA		
INVESTIGATORS	AK, OS		
FORM COMPLETED BY	AK, OS	DATE	5/15/23
		TIME	1330 AM PM
		REASON FOR SURVEY	US 219 Improvements

	Habitat Parameter	Condition Category			
		Optimal	Suboptimal	Marginal	Poor
Parameters to be evaluated in sampling reach	1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	SCORE 13	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
	SCORE 17	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
	SCORE 10	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
	SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
	SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

Habitat Parameter	Condition Category																				
	Optimal					Suboptimal					Marginal					Poor					
<b>6. Channel Alteration</b>  Channelization or dredging absent or minimal; stream with normal pattern.						Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.					Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.					Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.					
SCORE <u>20</u>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>7. Frequency of Riffles (or bends)</b>  Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.						Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.					Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.					Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.					
SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>8. Bank Stability (score each bank)</b>  Note: determine left or right side by facing downstream. SCORE <u>7</u> (LB) SCORE <u>8</u> (RB)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.					Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.					Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.					Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.					
Left Bank	10		9			8	7	6			5	4	3			2	1	0			
Right Bank	10		9			8	7	6			5	4	3			2	1	0			
<b>9. Vegetative Protection (score each bank)</b>  More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.						70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.					50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.					Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.					
SCORE <u>8</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>9</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			
<b>10. Riparian Vegetative Zone Width (score each bank riparian zone)</b>  Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.						Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.					Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.					Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.					
SCORE <u>10</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>2</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			

Total Score \_\_\_\_\_

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (FRONT)

STREAM NAME	WL027	LOCATION	Segment 2 DU/E
STATION #	RIVERMILE	STREAM CLASS	Use 1
LAT	39.717647	LONG	-79.082841
RIVER BASIN	Youghiogheny		
STORET #	AGENCY MD SHA		
INVESTIGATORS	AK, OS		
FORM COMPLETED BY	AK, OS	DATE	5/15/23
		TIME	1250 AM PM
		REASON FOR SURVEY	
		US 219 Improvements	

	Habitat Parameter	Condition Category			
		Optimal	Suboptimal	Marginal	Poor
Parameters to be evaluated in sampling reach	1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	SCORE 9	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
	SCORE 12	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
	SCORE 6	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
	SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
	SCORE 8	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

# HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

Habitat Parameter	Condition Category																				
	Optimal					Suboptimal					Marginal					Poor					
<b>6. Channel Alteration</b>  Channelization or dredging absent or minimal; stream with normal pattern.						Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.					Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.					Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.					
SCORE <b>20</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>7. Frequency of Riffles (or bends)</b>  Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.						Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.					Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.					Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.					
SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
<b>8. Bank Stability (score each bank)</b>  Note: determine left or right side by facing downstream. SCORE <u>9</u> (LB) SCORE <u>9</u> (RB)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.					Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.					Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.					Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.					
Left Bank	10		9			8	7	6			5	4	3			2	1	0			
Right Bank	10		9			8	7	6			5	4	3			2	1	0			
<b>9. Vegetative Protection (score each bank)</b>  More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.						70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.					50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.					Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.					
SCORE <u>6</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>6</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			
<b>10. Riparian Vegetative Zone Width (score each bank riparian zone)</b>  Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.						Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.					Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.					Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.					
SCORE <u>10</u> (LB)	Left Bank	10		9		8	7	6			5	4	3			2	1	0			
SCORE <u>10</u> (RB)	Right Bank	10		9		8	7	6			5	4	3			2	1	0			

Total Score \_\_\_\_\_

**PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET  
(FRONT)**

STREAM NAME <b>WL005</b>	LOCATION <b>Segment 3 DU-E/DU-E Shift</b>	
STATION # _____ RIVERMILE _____	STREAM CLASS <b>Use I</b>	
LAT <b>39.700087</b> LONG <b>-79.096101</b>	RIVER BASIN <b>Youghiogheny</b>	
STORET # _____	AGENCY <b>MD SHA</b>	
INVESTIGATORS <b>AK, MH</b>		
FORM COMPLETED BY <b>AK, JB</b>	DATE <b>Aug 1, 2022</b> TIME <b>PM</b> AM PM	REASON FOR SURVEY <b>US 219 improvements</b>

<b>WEATHER CONDITIONS</b>	<b>Now</b> <input type="checkbox"/> storm (heavy rain) <input type="checkbox"/> rain (steady rain) <input type="checkbox"/> showers (intermittent) _____% <input type="checkbox"/> %cloud cover <input checked="" type="checkbox"/> clear/sunny	<b>Past 24 hours</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____% <input checked="" type="checkbox"/>	<b>Has there been a heavy rain in the last 7 days?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Air Temperature</b> <u>18</u> °C <b>Other</b> _____		
<b>SITE LOCATION/MAP</b>	<b>Draw a map of the site and indicate the areas sampled (or attach a photograph)</b>  <p align="center">See Photolog</p>				
<b>STREAM CHARACTERIZATION</b>	<table> <tr> <td> <b>Stream Subsystem</b>  <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal   <b>Stream Origin</b>  <input type="checkbox"/> Glacial <input type="checkbox"/> Spring-fed  <input type="checkbox"/> Non-glacial montane <input checked="" type="checkbox"/> Mixture of origins  <input type="checkbox"/> Swamp and bog <input type="checkbox"/> Other _____           </td> <td> <b>Stream Type</b>  <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater   <b>Catchment Area</b> _____ km<sup>2</sup> </td> </tr> </table>			<b>Stream Subsystem</b> <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal  <b>Stream Origin</b> <input type="checkbox"/> Glacial <input type="checkbox"/> Spring-fed <input type="checkbox"/> Non-glacial montane <input checked="" type="checkbox"/> Mixture of origins <input type="checkbox"/> Swamp and bog <input type="checkbox"/> Other _____	<b>Stream Type</b> <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater  <b>Catchment Area</b> _____ km <sup>2</sup>
<b>Stream Subsystem</b> <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal  <b>Stream Origin</b> <input type="checkbox"/> Glacial <input type="checkbox"/> Spring-fed <input type="checkbox"/> Non-glacial montane <input checked="" type="checkbox"/> Mixture of origins <input type="checkbox"/> Swamp and bog <input type="checkbox"/> Other _____	<b>Stream Type</b> <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater  <b>Catchment Area</b> _____ km <sup>2</sup>				

# PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

<b>WATERSHED FEATURES</b>	<b>Predominant Surrounding Landuse</b> <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Other _____ <input type="checkbox"/> Residential		<b>Local Watershed NPS Pollution</b> <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources  <b>Local Watershed Erosion</b> <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy
<b>RIPARIAN VEGETATION (18 meter buffer)</b>	<b>Indicate the dominant type and record the dominant species present</b> <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous dominant species present <u>Betula lenta, Tilia americana</u>		
<b>INSTREAM FEATURES</b>	<div style="display: flex; justify-content: space-between;"> <div> <b>Estimated Reach Length</b>    <u>30</u> m  <b>Estimated Stream Width</b>    <u>&lt;1</u> m  <b>Sampling Reach Area</b>        <u>30</u> m<sup>2</sup>  <b>Area in km<sup>2</sup> (m<sup>2</sup>x1000)</b>    _____ km<sup>2</sup>  <b>Estimated Stream Depth</b>    <u>.1</u> m  <b>Surface Velocity</b>            _____ m/sec (at thalweg)           </div> <div> <b>Canopy Cover</b>  <input checked="" type="checkbox"/> Partly open    <input type="checkbox"/> Partly shaded    <input type="checkbox"/> Shaded  <b>High Water Mark</b>        <u>.1</u> m  <b>Proportion of Reach Represented by Stream Morphology Types</b>  <input type="checkbox"/> Riffle _____ %    <input checked="" type="checkbox"/> Run <u>100</u> %  <input type="checkbox"/> Pool _____ %  <b>Channelized</b>            <input type="checkbox"/> Yes      <input checked="" type="checkbox"/> No  <b>Dam Present</b>            <input type="checkbox"/> Yes      <input checked="" type="checkbox"/> No           </div> </div>		
<b>LARGE WOODY DEBRIS</b>	<b>LWD</b> <u>0</u> m <sup>2</sup> <b>Density of LWD</b> _____ m <sup>2</sup> /km <sup>2</sup> (LWD/ reach area)		
<b>AQUATIC VEGETATION</b>	<b>Indicate the dominant type and record the dominant species present</b> <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating Algae <input type="checkbox"/> Attached Algae dominant species present _____ <b>Portion of the reach with aquatic vegetation</b> <u>0</u> %		
<b>WATER QUALITY</b>	<div style="display: flex; justify-content: space-between;"> <div> <b>Temperature</b> _____ °C  <b>Specific Conductance</b> _____  <b>Dissolved Oxygen</b> _____  <b>pH</b> _____      Data not collected  <b>Turbidity</b> _____  <b>WQ Instrument Used</b> _____           </div> <div> <b>Water Odors</b>  <input checked="" type="checkbox"/> Normal/None    <input type="checkbox"/> Sewage  <input type="checkbox"/> Petroleum      <input type="checkbox"/> Chemical  <input type="checkbox"/> Fishy            <input type="checkbox"/> Other _____   <b>Water Surface Oils</b>  <input type="checkbox"/> Slick    <input type="checkbox"/> Sheen    <input type="checkbox"/> Globs    <input type="checkbox"/> Flecks  <input checked="" type="checkbox"/> None    <input type="checkbox"/> Other _____   <b>Turbidity (if not measured)</b>  <input checked="" type="checkbox"/> Clear    <input type="checkbox"/> Slightly turbid    <input type="checkbox"/> Turbid  <input type="checkbox"/> Opaque    <input type="checkbox"/> Stained    <input type="checkbox"/> Other _____           </div> </div>		
<b>SEDIMENT/SUBSTRATE</b>	<div style="display: flex; justify-content: space-between;"> <div> <b>Odors</b>  <input checked="" type="checkbox"/> Normal      <input type="checkbox"/> Sewage      <input type="checkbox"/> Petroleum  <input type="checkbox"/> Chemical    <input type="checkbox"/> Anaerobic    <input type="checkbox"/> None  <input type="checkbox"/> Other _____   <b>Oils</b>  <input checked="" type="checkbox"/> Absent    <input type="checkbox"/> Slight    <input type="checkbox"/> Moderate    <input type="checkbox"/> Profuse           </div> <div> <b>Deposits</b>  <input type="checkbox"/> Sludge    <input type="checkbox"/> Sawdust    <input type="checkbox"/> Paper fiber    <input checked="" type="checkbox"/> Sand  <input type="checkbox"/> Relict shells    <input type="checkbox"/> Other _____   <b>Looking at stones which are not deeply embedded, are the undersides black in color?</b>  <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No           </div> </div>		

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	20
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	10	Muck-Mud	black, very fine organic (FPOM)	20
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	0
Silt	0.004-0.06 mm	30			
Clay	< 0.004 mm (slick)	10			



**PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET  
(FRONT)**

STREAM NAME <b>WL008</b>	LOCATION <b>Segment 3 DU-E/DU-E Shift</b>	
STATION # _____ RIVERMILE _____	STREAM CLASS <b>Use I</b>	
LAT <b>39.701242</b> LONG <b>-79.095114</b>	RIVER BASIN <b>Youghiogheny</b>	
STORET # _____	AGENCY <b>MD SHA</b>	
INVESTIGATORS <b>AK, MH</b>		
FORM COMPLETED BY <b>AK, JB</b>	DATE <b>Aug 1, 2022</b> TIME <b>PM</b> AM PM	REASON FOR SURVEY <b>US 219 improvements</b>

<b>WEATHER CONDITIONS</b>	<b>Now</b> <input type="checkbox"/> storm (heavy rain) <input type="checkbox"/> rain (steady rain) <input type="checkbox"/> showers (intermittent) _____% <input type="checkbox"/> %cloud cover <input checked="" type="checkbox"/> clear/sunny	<b>Past 24 hours</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____% <input checked="" type="checkbox"/>	<b>Has there been a heavy rain in the last 7 days?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Air Temperature</b> <u>18</u> °C <b>Other</b> _____
	<b>SITE LOCATION/MAP</b> Draw a map of the site and indicate the areas sampled (or attach a photograph)  <b>See Photolog</b>		
<b>STREAM CHARACTERIZATION</b>	<b>Stream Subsystem</b> <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal  <b>Stream Origin</b> <input type="checkbox"/> Glacial <input checked="" type="checkbox"/> Spring-fed <input type="checkbox"/> Non-glacial montane <input type="checkbox"/> Mixture of origins <input type="checkbox"/> Swamp and bog <input type="checkbox"/> Other _____		
	<b>Stream Type</b> <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater  <b>Catchment Area</b> _____ km <sup>2</sup>		

# PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

<b>WATERSHED FEATURES</b>	<b>Predominant Surrounding Landuse</b> <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Other _____ <input type="checkbox"/> Residential		<b>Local Watershed NPS Pollution</b> <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources  <b>Local Watershed Erosion</b> <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy	
<b>RIPARIAN VEGETATION (18 meter buffer)</b>	<b>Indicate the dominant type and record the dominant species present</b> <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous dominant species present <u>Betula lenta, Tilia americana</u>			
<b>INSTREAM FEATURES</b>	<table style="width: 100%;"> <tr> <td style="width: 50%;"> <b>Estimated Reach Length</b>    <u>16</u> m  <b>Estimated Stream Width</b>    <u>&lt;1</u> m  <b>Sampling Reach Area</b>    <u>16</u> m<sup>2</sup>  <b>Area in km<sup>2</sup> (m<sup>2</sup>x1000)</b>    _____ km<sup>2</sup>  <b>Estimated Stream Depth</b>    <u>.1</u> m  <b>Surface Velocity (at thalweg)</b>    _____ m/sec               </td><td style="width: 50%;"> <b>Canopy Cover</b>  <input type="checkbox"/> Partly open    <input type="checkbox"/> Partly shaded    <input checked="" type="checkbox"/> Shaded  <b>High Water Mark</b>    <u>.1</u> m  <b>Proportion of Reach Represented by Stream Morphology Types</b>  <input type="checkbox"/> Riffle _____ %    <input checked="" type="checkbox"/> Run <u>100</u> %  <input type="checkbox"/> Pool _____ %  <b>Channelized</b>    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No  <b>Dam Present</b>    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No               </td></tr> </table>		<b>Estimated Reach Length</b> <u>16</u> m <b>Estimated Stream Width</b> <u>&lt;1</u> m <b>Sampling Reach Area</b> <u>16</u> m <sup>2</sup> <b>Area in km<sup>2</sup> (m<sup>2</sup>x1000)</b> _____ km <sup>2</sup> <b>Estimated Stream Depth</b> <u>.1</u> m <b>Surface Velocity (at thalweg)</b> _____ m/sec	<b>Canopy Cover</b> <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded <b>High Water Mark</b> <u>.1</u> m <b>Proportion of Reach Represented by Stream Morphology Types</b> <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % <b>Channelized</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Dam Present</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Estimated Reach Length</b> <u>16</u> m <b>Estimated Stream Width</b> <u>&lt;1</u> m <b>Sampling Reach Area</b> <u>16</u> m <sup>2</sup> <b>Area in km<sup>2</sup> (m<sup>2</sup>x1000)</b> _____ km <sup>2</sup> <b>Estimated Stream Depth</b> <u>.1</u> m <b>Surface Velocity (at thalweg)</b> _____ m/sec	<b>Canopy Cover</b> <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded <b>High Water Mark</b> <u>.1</u> m <b>Proportion of Reach Represented by Stream Morphology Types</b> <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % <b>Channelized</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Dam Present</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>LARGE WOODY DEBRIS</b>	<b>LWD</b> <u>0</u> m <sup>2</sup> <b>Density of LWD</b> _____ m <sup>2</sup> /km <sup>2</sup> (LWD/ reach area)			
<b>AQUATIC VEGETATION</b>	<b>Indicate the dominant type and record the dominant species present</b> <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating Algae <input type="checkbox"/> Attached Algae dominant species present _____ <b>Portion of the reach with aquatic vegetation</b> <u>0</u> %			
<b>WATER QUALITY</b>	<table style="width: 100%;"> <tr> <td style="width: 50%;"> <b>Temperature</b> _____ °C  <b>Specific Conductance</b> _____  <b>Dissolved Oxygen</b> _____  <b>pH</b> _____      Data not collected  <b>Turbidity</b> _____  <b>WQ Instrument Used</b> _____               </td><td style="width: 50%;"> <b>Water Odors</b>  <input checked="" type="checkbox"/> Normal/None    <input type="checkbox"/> Sewage  <input type="checkbox"/> Petroleum      <input type="checkbox"/> Chemical  <input type="checkbox"/> Fishy      <input type="checkbox"/> Other _____   <b>Water Surface Oils</b>  <input type="checkbox"/> Slick    <input type="checkbox"/> Sheen    <input type="checkbox"/> Globs    <input type="checkbox"/> Flecks  <input checked="" type="checkbox"/> None    <input type="checkbox"/> Other _____   <b>Turbidity (if not measured)</b>  <input checked="" type="checkbox"/> Clear    <input type="checkbox"/> Slightly turbid    <input type="checkbox"/> Turbid  <input type="checkbox"/> Opaque    <input type="checkbox"/> Stained    <input type="checkbox"/> Other _____               </td></tr> </table>		<b>Temperature</b> _____ °C <b>Specific Conductance</b> _____ <b>Dissolved Oxygen</b> _____ <b>pH</b> _____      Data not collected <b>Turbidity</b> _____ <b>WQ Instrument Used</b> _____	<b>Water Odors</b> <input checked="" type="checkbox"/> Normal/None <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Fishy <input type="checkbox"/> Other _____  <b>Water Surface Oils</b> <input type="checkbox"/> Slick <input type="checkbox"/> Sheen <input type="checkbox"/> Globs <input type="checkbox"/> Flecks <input checked="" type="checkbox"/> None <input type="checkbox"/> Other _____  <b>Turbidity (if not measured)</b> <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
<b>Temperature</b> _____ °C <b>Specific Conductance</b> _____ <b>Dissolved Oxygen</b> _____ <b>pH</b> _____      Data not collected <b>Turbidity</b> _____ <b>WQ Instrument Used</b> _____	<b>Water Odors</b> <input checked="" type="checkbox"/> Normal/None <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Fishy <input type="checkbox"/> Other _____  <b>Water Surface Oils</b> <input type="checkbox"/> Slick <input type="checkbox"/> Sheen <input type="checkbox"/> Globs <input type="checkbox"/> Flecks <input checked="" type="checkbox"/> None <input type="checkbox"/> Other _____  <b>Turbidity (if not measured)</b> <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____			
<b>SEDIMENT/SUBSTRATE</b>	<table style="width: 100%;"> <tr> <td style="width: 50%;"> <b>Odors</b>  <input checked="" type="checkbox"/> Normal      <input type="checkbox"/> Sewage      <input type="checkbox"/> Petroleum  <input type="checkbox"/> Chemical      <input type="checkbox"/> Anaerobic      <input type="checkbox"/> None  <input type="checkbox"/> Other _____   <b>Oils</b>  <input checked="" type="checkbox"/> Absent    <input type="checkbox"/> Slight    <input type="checkbox"/> Moderate    <input type="checkbox"/> Profuse               </td><td style="width: 50%;"> <b>Deposits</b>  <input type="checkbox"/> Sludge    <input type="checkbox"/> Sawdust    <input type="checkbox"/> Paper fiber    <input checked="" type="checkbox"/> Sand  <input type="checkbox"/> Relict shells    <input type="checkbox"/> Other _____   <b>Looking at stones which are not deeply embedded, are the undersides black in color?</b>  <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No               </td></tr> </table>		<b>Odors</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Anaerobic <input type="checkbox"/> None <input type="checkbox"/> Other _____  <b>Oils</b> <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse	<b>Deposits</b> <input type="checkbox"/> Sludge <input type="checkbox"/> Sawdust <input type="checkbox"/> Paper fiber <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Relict shells <input type="checkbox"/> Other _____  <b>Looking at stones which are not deeply embedded, are the undersides black in color?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Odors</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Anaerobic <input type="checkbox"/> None <input type="checkbox"/> Other _____  <b>Oils</b> <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse	<b>Deposits</b> <input type="checkbox"/> Sludge <input type="checkbox"/> Sawdust <input type="checkbox"/> Paper fiber <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Relict shells <input type="checkbox"/> Other _____  <b>Looking at stones which are not deeply embedded, are the undersides black in color?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	10
Boulder	> 256 mm (10")	15			
Cobble	64-256 mm (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	20
Gravel	2-64 mm (0.1"-2.5")	15			
Sand	0.06-2mm (gritty)	10	Marl	grey, shell fragments	0
Silt	0.004-0.06 mm	30			
Clay	< 0.004 mm (slick)	10			

**PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET  
(FRONT)**

STREAM NAME <b>WL009</b>	LOCATION <b>Segment 3 DU-E/DU-E Shift</b>	
STATION # _____ RIVERMILE _____	STREAM CLASS <b>Use I</b>	
LAT <b>39.712407</b> LONG <b>-79.088188</b>	RIVER BASIN <b>Youghiogheny</b>	
STORET # _____	AGENCY <b>MD SHA</b>	
INVESTIGATORS <b>AK, MH</b>		
FORM COMPLETED BY <b>AK, JB</b>	DATE <b>Aug 2, 2022</b> TIME <b>AM</b> AM PM	REASON FOR SURVEY <b>US 219 improvements</b>

<b>WEATHER CONDITIONS</b>	<b>Now</b> <input type="checkbox"/> storm (heavy rain) <input type="checkbox"/> rain (steady rain) <input type="checkbox"/> showers (intermittent) _____% <input type="checkbox"/> %cloud cover <input checked="" type="checkbox"/> clear/sunny	<b>Past 24 hours</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____% <input checked="" type="checkbox"/>	<b>Has there been a heavy rain in the last 7 days?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Air Temperature</b> <u>18</u> °C <b>Other</b> _____
<b>SITE LOCATION/MAP</b>	<b>Draw a map of the site and indicate the areas sampled (or attach a photograph)</b>  <p align="center">See Photolog</p>		
<b>STREAM CHARACTERIZATION</b>	<b>Stream Subsystem</b> <b>Ephemeral</b> <input type="checkbox"/> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Tidal <b>Stream Origin</b> <input type="checkbox"/> Glacial <input type="checkbox"/> Spring-fed <input type="checkbox"/> Non-glacial montane <input type="checkbox"/> Mixture of origins <input type="checkbox"/> Swamp and bog <input checked="" type="checkbox"/> Other <u>Overland</u> flow <b>Stream Type</b> <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater <b>Catchment Area</b> _____ km <sup>2</sup>		

# PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

<b>WATERSHED FEATURES</b>	<b>Predominant Surrounding Landuse</b> <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Other _____ <input type="checkbox"/> Residential		<b>Local Watershed NPS Pollution</b> <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources  <b>Local Watershed Erosion</b> <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy
<b>RIPARIAN VEGETATION (18 meter buffer)</b>	<b>Indicate the dominant type and record the dominant species present</b> <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous <b>dominant species present</b> <u>Betula lenta, Tilia americana</u>		
<b>INSTREAM FEATURES</b>	<div style="display: flex; justify-content: space-between;"> <div> <b>Estimated Reach Length</b>    <u>21</u> m  <b>Estimated Stream Width</b>    <u>&lt;1</u> m  <b>Sampling Reach Area</b>        <u>21</u> m<sup>2</sup>  <b>Area in km<sup>2</sup> (m<sup>2</sup>x1000)</b>    _____ km<sup>2</sup>  <b>Estimated Stream Depth</b>    <u>.1</u> m  <b>Surface Velocity (at thalweg)</b>    _____ m/sec             </div> <div> <b>Canopy Cover</b>  <input type="checkbox"/> Partly open    <input type="checkbox"/> Partly shaded    <input checked="" type="checkbox"/> Shaded  <b>High Water Mark</b>        <u>.1</u> m  <b>Proportion of Reach Represented by Stream Morphology Types</b>  <input type="checkbox"/> Riffle _____ %    <input checked="" type="checkbox"/> Run <u>100</u> %  <input type="checkbox"/> Pool _____ %  <b>Channelized</b>    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No  <b>Dam Present</b>    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No             </div> </div>		
<b>LARGE WOODY DEBRIS</b>	<b>LWD</b> <u>0</u> m <sup>2</sup> <b>Density of LWD</b> _____ m <sup>2</sup> /km <sup>2</sup> (LWD/ reach area)		
<b>AQUATIC VEGETATION</b>	<b>Indicate the dominant type and record the dominant species present</b> <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating Algae <input type="checkbox"/> Attached Algae <b>dominant species present</b> _____ <b>Portion of the reach with aquatic vegetation</b> <u>0</u> %		
<b>WATER QUALITY</b>	<div style="display: flex; justify-content: space-between;"> <div> <b>Temperature</b> _____ °C  <b>Specific Conductance</b> _____  <b>Dissolved Oxygen</b> _____  <b>pH</b> _____      Data not collected  <b>Turbidity</b> _____  <b>WQ Instrument Used</b> _____             </div> <div> <b>Water Odors</b>  <input checked="" type="checkbox"/> Normal/None    <input type="checkbox"/> Sewage  <input type="checkbox"/> Petroleum      <input type="checkbox"/> Chemical  <input type="checkbox"/> Fishy            <input type="checkbox"/> Other _____   <b>Water Surface Oils</b>  <input type="checkbox"/> Slick    <input type="checkbox"/> Sheen    <input type="checkbox"/> Globs    <input type="checkbox"/> Flecks  <input checked="" type="checkbox"/> None    <input type="checkbox"/> Other _____   <b>Turbidity (if not measured)</b>  <input checked="" type="checkbox"/> Clear    <input type="checkbox"/> Slightly turbid    <input type="checkbox"/> Turbid  <input type="checkbox"/> Opaque    <input type="checkbox"/> Stained    <input type="checkbox"/> Other _____             </div> </div>		
<b>SEDIMENT/SUBSTRATE</b>	<div style="display: flex; justify-content: space-between;"> <div> <b>Odors</b>  <input checked="" type="checkbox"/> Normal      <input type="checkbox"/> Sewage      <input type="checkbox"/> Petroleum  <input type="checkbox"/> Chemical    <input type="checkbox"/> Anaerobic    <input type="checkbox"/> None  <input type="checkbox"/> Other _____   <b>Oils</b>  <input checked="" type="checkbox"/> Absent    <input type="checkbox"/> Slight    <input type="checkbox"/> Moderate    <input type="checkbox"/> Profuse             </div> <div> <b>Deposits</b>  <input type="checkbox"/> Sludge    <input type="checkbox"/> Sawdust    <input type="checkbox"/> Paper fiber    <input checked="" type="checkbox"/> Sand  <input type="checkbox"/> Relict shells    <input type="checkbox"/> Other _____   <b>Looking at stones which are not deeply embedded, are the undersides black in color?</b>  <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No             </div> </div>		

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	50
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	10	Muck-Mud	black, very fine organic (FPOM)	5
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	5	Marl	grey, shell fragments	0
Silt	0.004-0.06 mm	55			
Clay	< 0.004 mm (slick)	5			

**PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET  
(FRONT)**

STREAM NAME <b>WL010</b>	LOCATION <b>Segment 3 DU-E/DU-E Shift</b>	
STATION # _____ RIVERMILE _____	STREAM CLASS <b>Use I</b>	
LAT <b>39.712407</b> LONG <b>-79.088188</b>	RIVER BASIN <b>Youghiogheny</b>	
STORET # _____	AGENCY <b>MD SHA</b>	
INVESTIGATORS <b>AK, MH</b>		
FORM COMPLETED BY <b>AK, JB</b>	DATE <b>Aug 2, 2022</b> TIME <b>AM</b> AM PM	REASON FOR SURVEY <b>US 219 improvements</b>

<b>WEATHER CONDITIONS</b>	<p><b>Now</b></p> <p><input type="checkbox"/> storm (heavy rain)</p> <p><input type="checkbox"/> rain (steady rain)</p> <p><input type="checkbox"/> showers (intermittent)</p> <p>____% <input type="checkbox"/> %cloud cover</p> <p><input checked="" type="checkbox"/> clear/sunny</p> <p><b>Past 24 hours</b></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/> %</p> <p><input checked="" type="checkbox"/></p> <p><b>Has there been a heavy rain in the last 7 days?</b></p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><b>Air Temperature</b> <u>18</u> °C</p> <p><b>Other</b> _____</p>
<b>SITE LOCATION/MAP</b>	<p><b>Draw a map of the site and indicate the areas sampled (or attach a photograph)</b></p> <p><b>See Photolog</b></p>
<b>STREAM CHARACTERIZATION</b>	<p><b>Stream Subsystem</b></p> <p><input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal</p> <p><b>Stream Type</b></p> <p><input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater</p> <p><b>Stream Origin</b></p> <p><input type="checkbox"/> Glacial <input type="checkbox"/> Spring-fed</p> <p><input type="checkbox"/> Non-glacial montane <input type="checkbox"/> Mixture of origins</p> <p><input type="checkbox"/> Swamp and bog <input checked="" type="checkbox"/> Other <u>Mixture of origins</u></p> <p><b>Catchment Area</b> _____ km<sup>2</sup></p>

# PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

<b>WATERSHED FEATURES</b>	<b>Predominant Surrounding Landuse</b> <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Other _____ <input type="checkbox"/> Residential	<b>Local Watershed NPS Pollution</b> <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources  <b>Local Watershed Erosion</b> <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy
<b>RIPARIAN VEGETATION (18 meter buffer)</b>	<b>Indicate the dominant type and record the dominant species present</b> <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous dominant species present <u>Betula lenta, Tilia americana</u>	
<b>INSTREAM FEATURES</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">           Estimated Reach Length    <u>40</u> m            Estimated Stream Width    <u>&lt;1</u> m            Sampling Reach Area    <u>40</u> m<sup>2</sup>            Area in km<sup>2</sup> (m<sup>2</sup>x1000)    _____ km<sup>2</sup>            Estimated Stream Depth    <u>.1</u> m            Surface Velocity (at thalweg)    _____ m/sec         </div> <div style="width: 45%;"> <b>Canopy Cover</b>  <input type="checkbox"/> Partly open    <input type="checkbox"/> Partly shaded    <input checked="" type="checkbox"/> Shaded   <b>High Water Mark</b>    <u>.1</u> m   <b>Proportion of Reach Represented by Stream Morphology Types</b>  <input type="checkbox"/> Riffle _____ %    <input checked="" type="checkbox"/> Run <u>100</u> %  <input type="checkbox"/> Pool _____ %   <b>Channelized</b>    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No  <b>Dam Present</b>    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No         </div> </div>	
<b>LARGE WOODY DEBRIS</b>	LWD <u>0</u> m <sup>2</sup> Density of LWD    _____ m <sup>2</sup> /km <sup>2</sup> (LWD/ reach area)	
<b>AQUATIC VEGETATION</b>	<b>Indicate the dominant type and record the dominant species present</b> <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating Algae <input type="checkbox"/> Attached Algae  dominant species present    _____ Portion of the reach with aquatic vegetation <u>0</u> %	
<b>WATER QUALITY</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">           Temperature _____ °C            Specific Conductance _____            Dissolved Oxygen _____            pH _____      Data not collected            Turbidity _____            WQ Instrument Used _____         </div> <div style="width: 45%;"> <b>Water Odors</b>  <input checked="" type="checkbox"/> Normal/None    <input type="checkbox"/> Sewage  <input type="checkbox"/> Petroleum      <input type="checkbox"/> Chemical  <input type="checkbox"/> Fishy      <input type="checkbox"/> Other _____   <b>Water Surface Oils</b>  <input type="checkbox"/> Slick    <input type="checkbox"/> Sheen    <input type="checkbox"/> Globs    <input type="checkbox"/> Flecks  <input checked="" type="checkbox"/> None    <input type="checkbox"/> Other _____   <b>Turbidity (if not measured)</b>  <input checked="" type="checkbox"/> Clear    <input type="checkbox"/> Slightly turbid    <input type="checkbox"/> Turbid  <input type="checkbox"/> Opaque    <input type="checkbox"/> Stained    <input type="checkbox"/> Other _____         </div> </div>	
<b>SEDIMENT/SUBSTRATE</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <b>Odors</b>  <input checked="" type="checkbox"/> Normal      <input type="checkbox"/> Sewage      <input type="checkbox"/> Petroleum  <input type="checkbox"/> Chemical      <input type="checkbox"/> Anaerobic      <input type="checkbox"/> None  <input type="checkbox"/> Other _____   <b>Oils</b>  <input checked="" type="checkbox"/> Absent    <input type="checkbox"/> Slight    <input type="checkbox"/> Moderate    <input type="checkbox"/> Profuse         </div> <div style="width: 45%;"> <b>Deposits</b>  <input type="checkbox"/> Sludge    <input type="checkbox"/> Sawdust    <input type="checkbox"/> Paper fiber    <input checked="" type="checkbox"/> Sand  <input type="checkbox"/> Relict shells    <input type="checkbox"/> Other _____   <b>Looking at stones which are not deeply embedded, are the undersides black in color?</b>  <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No         </div> </div>	

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	10			
Sand	0.06-2mm (gritty)	10	Marl	grey, shell fragments	0
Silt	0.004-0.06 mm	60			
Clay	< 0.004 mm (slick)	15			

**PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET  
(FRONT)**

STREAM NAME <b>WL021</b>	LOCATION <b>Segment 2 DU/E</b>	
STATION # _____ RIVERMILE _____	STREAM CLASS <b>Use I</b>	
LAT <b>39.720366</b> LONG <b>-79.082099</b>	RIVER BASIN <b>Youghiogheny</b>	
STORET # _____	AGENCY <b>MD SHA</b>	
INVESTIGATORS <b>AK, MH</b>		
FORM COMPLETED BY <b>AK, JB</b>	DATE <b>Aug 3, 2022</b> TIME <b>PM</b> AM PM	REASON FOR SURVEY <b>US 219 improvements</b>

<b>WEATHER CONDITIONS</b>	<b>Now</b> <input type="checkbox"/> storm (heavy rain) <input type="checkbox"/> rain (steady rain) <input type="checkbox"/> showers (intermittent) _____% <input type="checkbox"/> %cloud cover <input checked="" type="checkbox"/> clear/sunny	<b>Past 24 hours</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____% <input checked="" type="checkbox"/>	<b>Has there been a heavy rain in the last 7 days?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Air Temperature</b> <u>18</u> °C <b>Other</b> _____		
<b>SITE LOCATION/MAP</b>	<b>Draw a map of the site and indicate the areas sampled (or attach a photograph)</b>  <p align="center">See Photolog</p>				
<b>STREAM CHARACTERIZATION</b>	<table> <tr> <td> <b>Stream Subsystem</b>  <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal   <b>Stream Origin</b>  <input type="checkbox"/> Glacial <input type="checkbox"/> Spring-fed  <input type="checkbox"/> Non-glacial montane <input checked="" type="checkbox"/> Mixture of origins  <input type="checkbox"/> Swamp and bog <input type="checkbox"/> Other _____           </td> <td> <b>Stream Type</b>  <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater   <b>Catchment Area</b> _____ km<sup>2</sup> </td> </tr> </table>			<b>Stream Subsystem</b> <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal  <b>Stream Origin</b> <input type="checkbox"/> Glacial <input type="checkbox"/> Spring-fed <input type="checkbox"/> Non-glacial montane <input checked="" type="checkbox"/> Mixture of origins <input type="checkbox"/> Swamp and bog <input type="checkbox"/> Other _____	<b>Stream Type</b> <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater  <b>Catchment Area</b> _____ km <sup>2</sup>
<b>Stream Subsystem</b> <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal  <b>Stream Origin</b> <input type="checkbox"/> Glacial <input type="checkbox"/> Spring-fed <input type="checkbox"/> Non-glacial montane <input checked="" type="checkbox"/> Mixture of origins <input type="checkbox"/> Swamp and bog <input type="checkbox"/> Other _____	<b>Stream Type</b> <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater  <b>Catchment Area</b> _____ km <sup>2</sup>				

# PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

<b>WATERSHED FEATURES</b>	<b>Predominant Surrounding Landuse</b> <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Other _____ <input type="checkbox"/> Residential		<b>Local Watershed NPS Pollution</b> <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources  <b>Local Watershed Erosion</b> <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy	
<b>RIPARIAN VEGETATION (18 meter buffer)</b>	<b>Indicate the dominant type and record the dominant species present</b> <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous <b>dominant species present</b> <u>Betula lenta, Tilia americana</u>			
<b>INSTREAM FEATURES</b>	<table style="width: 100%;"> <tr> <td style="width: 50%;"> <b>Estimated Reach Length</b>    <u>8</u> m  <b>Estimated Stream Width</b>    <u>&lt;1</u> m  <b>Sampling Reach Area</b>    <u>8</u> m<sup>2</sup>  <b>Area in km<sup>2</sup> (m<sup>2</sup>x1000)</b>    _____ km<sup>2</sup>  <b>Estimated Stream Depth</b>    <u>.1</u> m  <b>Surface Velocity (at thalweg)</b>    _____ m/sec                 </td><td style="width: 50%;"> <b>Canopy Cover</b>  <input type="checkbox"/> Partly open    <input type="checkbox"/> Partly shaded    <input checked="" type="checkbox"/> Shaded  <b>High Water Mark</b>    <u>.1</u> m  <b>Proportion of Reach Represented by Stream Morphology Types</b>  <input type="checkbox"/> Riffle _____ %    <input checked="" type="checkbox"/> Run <u>100</u> %  <input type="checkbox"/> Pool _____ %  <b>Channelized</b>    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No  <b>Dam Present</b>    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No                 </td></tr> </table>		<b>Estimated Reach Length</b> <u>8</u> m <b>Estimated Stream Width</b> <u>&lt;1</u> m <b>Sampling Reach Area</b> <u>8</u> m <sup>2</sup> <b>Area in km<sup>2</sup> (m<sup>2</sup>x1000)</b> _____ km <sup>2</sup> <b>Estimated Stream Depth</b> <u>.1</u> m <b>Surface Velocity (at thalweg)</b> _____ m/sec	<b>Canopy Cover</b> <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded <b>High Water Mark</b> <u>.1</u> m <b>Proportion of Reach Represented by Stream Morphology Types</b> <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % <b>Channelized</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Dam Present</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Estimated Reach Length</b> <u>8</u> m <b>Estimated Stream Width</b> <u>&lt;1</u> m <b>Sampling Reach Area</b> <u>8</u> m <sup>2</sup> <b>Area in km<sup>2</sup> (m<sup>2</sup>x1000)</b> _____ km <sup>2</sup> <b>Estimated Stream Depth</b> <u>.1</u> m <b>Surface Velocity (at thalweg)</b> _____ m/sec	<b>Canopy Cover</b> <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded <b>High Water Mark</b> <u>.1</u> m <b>Proportion of Reach Represented by Stream Morphology Types</b> <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % <b>Channelized</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Dam Present</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>LARGE WOODY DEBRIS</b>	<b>LWD</b> <u>0</u> m <sup>2</sup> <b>Density of LWD</b> _____ m <sup>2</sup> /km <sup>2</sup> (LWD/ reach area)			
<b>AQUATIC VEGETATION</b>	<b>Indicate the dominant type and record the dominant species present</b> <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating Algae <input type="checkbox"/> Attached Algae <b>dominant species present</b> _____ <b>Portion of the reach with aquatic vegetation</b> <u>0</u> %			
<b>WATER QUALITY</b>	<table style="width: 100%;"> <tr> <td style="width: 50%;"> <b>Temperature</b> _____ °C  <b>Specific Conductance</b> _____  <b>Dissolved Oxygen</b> _____  <b>pH</b> _____      Data not collected  <b>Turbidity</b> _____  <b>WQ Instrument Used</b> _____                 </td><td style="width: 50%;"> <b>Water Odors</b>  <input checked="" type="checkbox"/> Normal/None    <input type="checkbox"/> Sewage  <input type="checkbox"/> Petroleum      <input type="checkbox"/> Chemical  <input type="checkbox"/> Fishy      <input type="checkbox"/> Other _____   <b>Water Surface Oils</b>  <input type="checkbox"/> Slick    <input type="checkbox"/> Sheen    <input type="checkbox"/> Globs    <input type="checkbox"/> Flecks  <input checked="" type="checkbox"/> None    <input type="checkbox"/> Other _____   <b>Turbidity (if not measured)</b>  <input checked="" type="checkbox"/> Clear    <input type="checkbox"/> Slightly turbid    <input type="checkbox"/> Turbid  <input type="checkbox"/> Opaque    <input type="checkbox"/> Stained    <input type="checkbox"/> Other _____                 </td></tr> </table>		<b>Temperature</b> _____ °C <b>Specific Conductance</b> _____ <b>Dissolved Oxygen</b> _____ <b>pH</b> _____      Data not collected <b>Turbidity</b> _____ <b>WQ Instrument Used</b> _____	<b>Water Odors</b> <input checked="" type="checkbox"/> Normal/None <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Fishy <input type="checkbox"/> Other _____  <b>Water Surface Oils</b> <input type="checkbox"/> Slick <input type="checkbox"/> Sheen <input type="checkbox"/> Globs <input type="checkbox"/> Flecks <input checked="" type="checkbox"/> None <input type="checkbox"/> Other _____  <b>Turbidity (if not measured)</b> <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
<b>Temperature</b> _____ °C <b>Specific Conductance</b> _____ <b>Dissolved Oxygen</b> _____ <b>pH</b> _____      Data not collected <b>Turbidity</b> _____ <b>WQ Instrument Used</b> _____	<b>Water Odors</b> <input checked="" type="checkbox"/> Normal/None <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Fishy <input type="checkbox"/> Other _____  <b>Water Surface Oils</b> <input type="checkbox"/> Slick <input type="checkbox"/> Sheen <input type="checkbox"/> Globs <input type="checkbox"/> Flecks <input checked="" type="checkbox"/> None <input type="checkbox"/> Other _____  <b>Turbidity (if not measured)</b> <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____			
<b>SEDIMENT/SUBSTRATE</b>	<table style="width: 100%;"> <tr> <td style="width: 50%;"> <b>Odors</b>  <input checked="" type="checkbox"/> Normal      <input type="checkbox"/> Sewage      <input type="checkbox"/> Petroleum  <input type="checkbox"/> Chemical      <input type="checkbox"/> Anaerobic      <input type="checkbox"/> None  <input type="checkbox"/> Other _____   <b>Oils</b>  <input checked="" type="checkbox"/> Absent    <input type="checkbox"/> Slight    <input type="checkbox"/> Moderate    <input type="checkbox"/> Profuse                 </td><td style="width: 50%;"> <b>Deposits</b>  <input type="checkbox"/> Sludge    <input type="checkbox"/> Sawdust    <input type="checkbox"/> Paper fiber    <input checked="" type="checkbox"/> Sand  <input type="checkbox"/> Relict shells    <input type="checkbox"/> Other _____   <b>Looking at stones which are not deeply embedded, are the undersides black in color?</b>  <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No                 </td></tr> </table>		<b>Odors</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Anaerobic <input type="checkbox"/> None <input type="checkbox"/> Other _____  <b>Oils</b> <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse	<b>Deposits</b> <input type="checkbox"/> Sludge <input type="checkbox"/> Sawdust <input type="checkbox"/> Paper fiber <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Relict shells <input type="checkbox"/> Other _____  <b>Looking at stones which are not deeply embedded, are the undersides black in color?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Odors</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Anaerobic <input type="checkbox"/> None <input type="checkbox"/> Other _____  <b>Oils</b> <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse	<b>Deposits</b> <input type="checkbox"/> Sludge <input type="checkbox"/> Sawdust <input type="checkbox"/> Paper fiber <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Relict shells <input type="checkbox"/> Other _____  <b>Looking at stones which are not deeply embedded, are the undersides black in color?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	25
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	5
Gravel	2-64 mm (0.1"-2.5")	20			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	30			
Clay	< 0.004 mm (slick)	10			



**PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET  
(FRONT)**

STREAM NAME <b>WL028</b>	LOCATION <b>Segment 2 DU/E</b>	
STATION # _____ RIVERMILE _____	STREAM CLASS <b>Use I</b>	
LAT <b>39.719728</b> LONG <b>-79.082514</b>	RIVER BASIN <b>Youghiogheny</b>	
STORET # _____	AGENCY <b>MD SHA</b>	
INVESTIGATORS <b>AK, MH</b>		
FORM COMPLETED BY <b>AK, JB</b>	DATE <b>Oct 27, 2022</b> TIME <b>PM</b> AM PM	REASON FOR SURVEY <b>US 219 improvements</b>

<b>WEATHER CONDITIONS</b>	<b>Now</b> <input type="checkbox"/> storm (heavy rain) <input type="checkbox"/> rain (steady rain) <input type="checkbox"/> showers (intermittent) _____% <input type="checkbox"/> %cloud cover <input checked="" type="checkbox"/> clear/sunny	<b>Past 24 hours</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____% <input checked="" type="checkbox"/>	<b>Has there been a heavy rain in the last 7 days?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Air Temperature</b> <u>13</u> °C <b>Other</b> _____
	<b>SITE LOCATION/MAP</b> Draw a map of the site and indicate the areas sampled (or attach a photograph)  See Photolog		
<b>STREAM CHARACTERIZATION</b>	<b>Stream Subsystem</b> <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal <b>Stream Origin</b> <input type="checkbox"/> Glacial <input type="checkbox"/> Spring-fed <input type="checkbox"/> Non-glacial montane <input checked="" type="checkbox"/> Mixture of origins <input type="checkbox"/> Swamp and bog <input type="checkbox"/> Other _____		
	<b>Stream Type</b> <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater <b>Catchment Area</b> _____ km <sup>2</sup>		

# PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

<b>WATERSHED FEATURES</b>	<b>Predominant Surrounding Landuse</b> <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Other _____ <input type="checkbox"/> Residential	<b>Local Watershed NPS Pollution</b> <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources  <b>Local Watershed Erosion</b> <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy
<b>RIPARIAN VEGETATION (18 meter buffer)</b>	<b>Indicate the dominant type and record the dominant species present</b> <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous dominant species present <u>Betula lenta, Tilia americana</u>	
<b>INSTREAM FEATURES</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <b>Estimated Reach Length</b>    <u>18</u> m  <b>Estimated Stream Width</b>    <u>&lt;1</u> m  <b>Sampling Reach Area</b>        <u>18</u> m<sup>2</sup>  <b>Area in km<sup>2</sup> (m<sup>2</sup>x1000)</b>    _____ km<sup>2</sup>  <b>Estimated Stream Depth</b>    <u>.1</u> m  <b>Surface Velocity (at thalweg)</b>    _____ m/sec           </div> <div style="width: 45%;"> <b>Canopy Cover</b>  <input type="checkbox"/> Partly open    <input type="checkbox"/> Partly shaded    <input checked="" type="checkbox"/> Shaded  <b>High Water Mark</b>        <u>.1</u> m  <b>Proportion of Reach Represented by Stream Morphology Types</b>  <input type="checkbox"/> Riffle _____ %    <input checked="" type="checkbox"/> Run <u>100</u> %  <input type="checkbox"/> Pool _____ %  <b>Channelized</b>    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No  <b>Dam Present</b>    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No           </div> </div>	
<b>LARGE WOODY DEBRIS</b>	<b>LWD</b> <u>0</u> m <sup>2</sup> <b>Density of LWD</b> _____ m <sup>2</sup> /km <sup>2</sup> (LWD/ reach area)	
<b>AQUATIC VEGETATION</b>	<b>Indicate the dominant type and record the dominant species present</b> <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating Algae <input type="checkbox"/> Attached Algae dominant species present _____ <b>Portion of the reach with aquatic vegetation</b> <u>0</u> %	
<b>WATER QUALITY</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <b>Temperature</b> _____ °C  <b>Specific Conductance</b> _____  <b>Dissolved Oxygen</b> _____  <b>pH</b> _____      Data not collected  <b>Turbidity</b> _____  <b>WQ Instrument Used</b> _____           </div> <div style="width: 45%;"> <b>Water Odors</b>  <input checked="" type="checkbox"/> Normal/None    <input type="checkbox"/> Sewage  <input type="checkbox"/> Petroleum      <input type="checkbox"/> Chemical  <input type="checkbox"/> Fishy            <input type="checkbox"/> Other _____   <b>Water Surface Oils</b>  <input type="checkbox"/> Slick    <input type="checkbox"/> Sheen    <input type="checkbox"/> Globs    <input type="checkbox"/> Flecks  <input checked="" type="checkbox"/> None    <input type="checkbox"/> Other _____   <b>Turbidity (if not measured)</b>  <input checked="" type="checkbox"/> Clear    <input type="checkbox"/> Slightly turbid    <input type="checkbox"/> Turbid  <input type="checkbox"/> Opaque    <input type="checkbox"/> Stained    <input type="checkbox"/> Other _____           </div> </div>	
<b>SEDIMENT/SUBSTRATE</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <b>Odors</b>  <input checked="" type="checkbox"/> Normal      <input type="checkbox"/> Sewage      <input type="checkbox"/> Petroleum  <input type="checkbox"/> Chemical    <input type="checkbox"/> Anaerobic    <input type="checkbox"/> None  <input type="checkbox"/> Other _____   <b>Oils</b>  <input checked="" type="checkbox"/> Absent    <input type="checkbox"/> Slight    <input type="checkbox"/> Moderate    <input type="checkbox"/> Profuse           </div> <div style="width: 45%;"> <b>Deposits</b>  <input type="checkbox"/> Sludge    <input type="checkbox"/> Sawdust    <input type="checkbox"/> Paper fiber    <input checked="" type="checkbox"/> Sand  <input type="checkbox"/> Relict shells    <input type="checkbox"/> Other _____   <b>Looking at stones which are not deeply embedded, are the undersides black in color?</b>  <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No           </div> </div>	

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	60
Boulder	> 256 mm (10")	5			
Cobble	64-256 mm (2.5"-10")	15	Muck-Mud	black, very fine organic (FPOM)	10
Gravel	2-64 mm (0.1"-2.5")	15			
Sand	0.06-2mm (gritty)	5	Marl	grey, shell fragments	0
Silt	0.004-0.06 mm	55			
Clay	< 0.004 mm (slick)	5			

## **APPENDIX D**

### ***Representative Site Photographs***

*Pennsylvania*

# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/23/22

Photo No. 104

Direction: Northwest

Comments: Looking downstream  
along Stream S1 from atop  
culvert



Photographer: Connor Sullivan

Date: 5/23/22

Photo No. 105

Direction: Northwest

Comments: Looking downstream  
along Stream S1, facing toward  
the culvert



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/25/22

Photo No. 106

Direction: North

Comments: Looking upstream  
along Stream S1A



Photographer: Connor Sullivan

Date: 4/24/23

Photo No. 107

Direction: Northwest

Comments: Looking downstream  
at S2



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/17/23

Photo No. 108

Direction: Southeast

Comments: Looking upstream at Stream S2



Photographer: Connor Sullivan

Date: 5/25/22

Photo No. 109

Direction: Southeast

Comments: Looking upstream along Stream S2, toward old stone crossing



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan  
Date: 5/25/22  
Photo No. 110  
Direction: East  
Comments: Looking upstream  
along Stream S2A, from Stream  
S2



Photographer: Connor Sullivan  
Date: 5/25/22  
Photo No. 111  
Direction: East  
Comments: : Looking upstream  
along Stream S2B, from Stream  
S2



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/26/22

Photo No. 112

Direction: West

Comments: Looking downstream  
along Stream S3



Photographer: Connor Sullivan

Date: 6/1/22

Photo No. 113

Direction: Northwest

Comments: Looking downstream  
along Stream S4, on the west side  
of US 219.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/1/22

Photo No. 114

Direction: West

Comments: Looking downstream  
along Stream S4, on the east side  
of US 219

Photo 115 removed due to a change in the LOD. Resource is  
no longer within the study area.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/1/22

Photo No. 116

Direction: Northwest

Comments: Looking downstream  
along Stream S4A



Photographer: Connor Sullivan

Date: 6/1/22

Photo No. 117

Direction: Northwest

Comments: Looking upstream  
along Stream S4B



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/8/22

Photo No. 118

Direction: East

Comments: Looking across  
Stream S6



Photographer: Connor Sullivan

Date: 6/8/22

Photo No. 119

Direction: Southwest

Comments: Looking upstream  
along Stream 7, from the lower  
limit of the stream



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



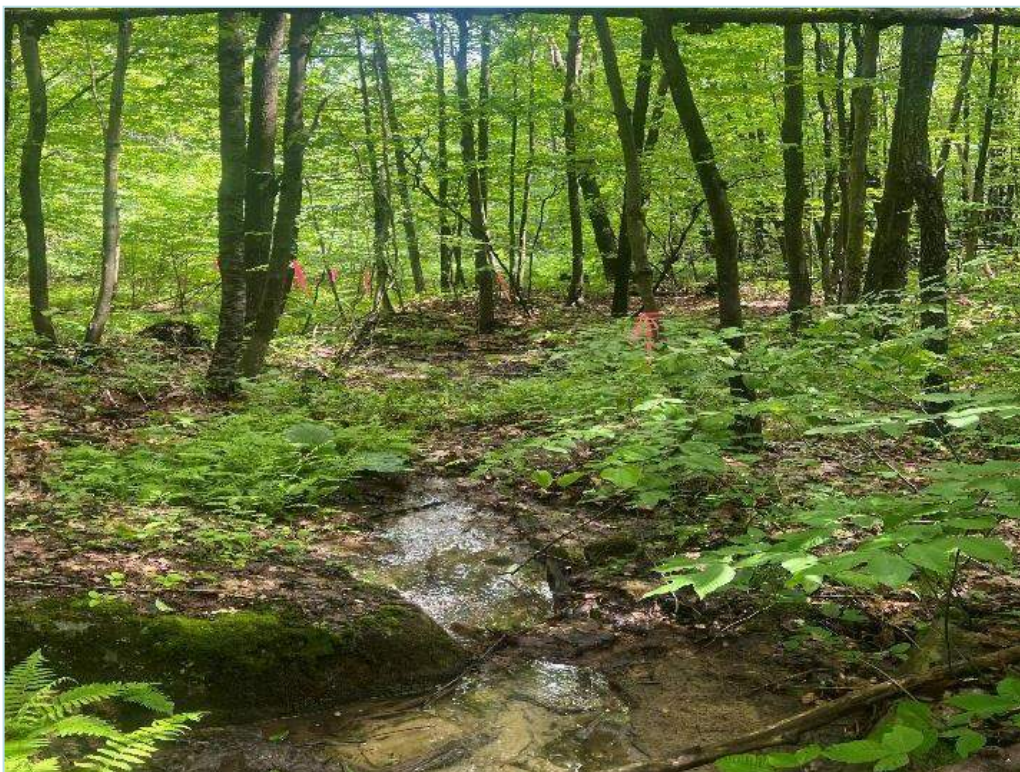
Photographer: Connor Sullivan

Date: 6/9/22

Photo No. 120

Direction: Southeast

Comments: Looking upstream  
along Stream S7, from near the  
upper limit of the stream.



Photographer: Connor Sullivan

Date: 6/8/22

Photo No. 121

Direction: Northwest

Comments: Looking upstream  
along Stream 7A



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/9/22

Photo No. 122

Direction: East

Comments: Looking upstream  
along Stream S7B, from the  
channel of Stream S7



Photographer: Connor Sullivan

Date: 6/8/22

Photo No. 123

Direction: Northwest

Comments: Looking downstream  
along the upper portion of Stream  
S8



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/9/22

Photo No. 124

Direction: Northwest

Comments: Looking downstream  
along the middle portion of  
Stream S8



Photographer: Connor Sullivan

Date: 6/9/22

Photo No. 125

Direction: Southeast

Comments: Looking upstream  
along Stream S9



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/21/22

Photo No. 126

Direction: East

Comments: Looking upstream  
along Stream S10



Photographer: Connor Sullivan

Date: 6/21/22

Photo No. 127

Direction: Northwest

Comments: Looking downstream  
along Stream S11



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/21/22

Photo No. 128

Direction: Northwest

Comments: Looking downstream  
along Stream S12



Photographer: Connor Sullivan

Date: 6/21/22

Photo No. 129

Direction: Northwest

Comments: Looking downstream  
along Stream S13, from the seep  
area



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/21/22

Photo No. 130

Direction: Northwest

Comments: Looking downstream  
along Stream S13, where it  
crosses a forest road

Photo 131 removed due to a change in the LOD. Resource is  
no longer within the study area.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/21/22

Photo No. 132

Direction: Northeast

Comments: Looking upstream  
along Stream S15



Photographer: Connor Sullivan

Date: 6/21/22

Photo No. 133

Direction: Southeast

Comments: Looking upstream  
along Stream S15, towards a seep  
where the stream becomes  
perennial



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 134

Direction: West

Comments: Looking downstream along Stream S15, along a perennial portion of the stream, located within the tire ruts of an old forest road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 135

Direction: Southeast

Comments: Looking downstream along Stream S15, from the upper limit



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 136

Direction: Southeast

Comments: Looking upstream along Stream S16, from the lower limit, where the stream is ephemeral



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 137

Direction: Northwest

Comments: Looking downstream along Stream S16, at an intermittent portion



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 138

Direction: Northeast

Comments: Looking downstream  
along Stream S16, from near the  
upper limit



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 139

Direction: Southeast

Comments: Looking upstream  
along Stream S16A, from the  
confluence with Stream S16



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 140

Direction: West

Comments: Looking downstream  
along Stream S16A, from near  
the upper limit of the stream



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 141

Direction: Northwest

Comments: Looking downstream  
along Stream S16B, toward the  
confluence with Stream S16



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 142

Direction: Northwest

Comments: Looking downstream  
along Stream S16B, looking  
along an intermittent portion



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 143

Direction: Southeast

Comments: Looking upstream  
along Stream S16B, toward the  
upper limit of the stream



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 144

Direction: Northwest

Comments: Looking downstream  
along Stream S16C, from the  
upper limit of the stream



Photographer: Connor Sullivan

Date: 6/23/22

Photo No. 145

Direction: Northwest

Comments: Looking downstream  
along Stream S16D, from where  
the channel splits from Stream  
S16A



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 146

Direction: Northwest

Comments: Looking downstream  
along Stream S16E, from the  
upper limit of the stream



Photographer: Connor Sullivan

Date: 6/23/22

Photo No. 147

Direction: Southeast

Comments: Looking upstream  
along Stream S16E, from where  
the channel crosses a forest road



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 148

Direction: Southeast

Comments: Looking upstream  
along Stream S17



Photographer: Connor Sullivan

Date: 6/23/22

Photo No. 149

Direction: Southeast

Comments: Looking upstream  
along Stream S18, toward the  
pipe carrying the stream beneath  
an access road



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 150

Direction: West

Comments: Looking downstream along Stream S18, from the edge of Wetland W28



Photographer: Connor Sullivan

Date: 6/23/22

Photo No. 151

Direction: Southeast

Comments: Looking upstream along Stream S18, where the stream drains into Wetland W28



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/11/22

Photo No. 152

Direction: Southeast

Comments: Looking upstream  
along Stream S19, from the  
lower limit



Photographer: Connor Sullivan

Date: 7/11/22

Photo No. 153

Direction: Northwest

Comments: Looking downstream  
along Stream S18



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan  
Date: 7/11/22  
Photo No. 154  
Direction: East  
Comments: Looking upstream  
along the upper portion of Stream  
S19, from a forest road



Photographer: Connor Sullivan  
Date: 7/11/22  
Photo No. 155  
Direction: Northeast  
Comments: Looking upstream  
along Stream S19A, from the  
confluence with Stream S19.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/11/22

Photo No. 156

Direction: Southeast

Comments: Looking upstream  
along Stream S20



Photographer: Connor Sullivan

Date: 7/12/22

Photo No. 157

Direction: Southeast

Comments: Looking upstream  
along the Stream S21, from the  
lower limit



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/13/22

Photo No. 158

Direction: East

Comments: Looking upstream along the upper portion of Stream S21, toward one of the seep areas that comprises the channel



Photographer: Connor Sullivan

Date: 7/13/22

Photo No. 159

Direction: Southeast

Comments: Looking upstream along Stream S21, toward the seep at the upper limit of the stream



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road

Photo 160 removed due to a change in the LOD. Resource is no longer within the study area.



Photographer: Connor Sullivan  
Date: 7/13/22  
Photo No. 161  
Direction: Southeast  
Comments: Looking upstream  
along Stream S23, from near the  
lower limit



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/13/22

Photo No. 162

Direction: Southeast

Comments: Looking upstream  
along Stream S23, near the upper  
limit



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 163

Direction: East

Comments: Looking upstream  
along Stream S24



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 164

Direction: Northeast

Comments: Looking upstream  
along Stream S25



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 165

Direction: Southeast

Comments: Looking upstream  
along Stream S25A



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 166

Direction: Southwest

Comments: Looking across Stream S26, where the stream emerges from the hillslope along an access road



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 167

Direction: West

Comments: Looking downstream along Stream S26, from the upper limit



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 168

Direction: Southwest

Comments: Looking downstream along Stream S27, an ephemeral stream located within an old access road



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 169

Direction: East

Comments: Looking upstream along Stream S28, facing toward wetland W36



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/15/22

Photo No. 170

Direction: Southeast

Comments: Looking upstream  
along Stream S29, toward the  
seep area

Photo 171 removed due to a change in the LOD. Resource is  
no longer within the study area.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/15/22

Photo No. 172

Direction: Northeast

Comments: Looking across Stream S29, where the streams cross an access road. Note Stream S29A is in the background



Photographer: Connor Sullivan

Date: 7/15/22

Photo No. 173

Direction: East

Comments: Looking upstream toward the seep of Stream S29A.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/15/22

Photo No. 174

Direction: Southeast

Comments: Looking upstream along Stream S30, toward the seep area at the upper limit of the stream



Photographer: Connor Sullivan

Date: 7/19/22

Photo No. 175

Direction: Southeast

Comments: Looking upstream along Stream S31, facing toward a culvert carrying the stream under an access road.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan  
Date: 7/19/22  
Photo No. 176  
Direction: Southeast  
Comments: Looking upstream  
along Stream S31, toward Piney  
Run Road



Photographer: Connor Sullivan  
Date: 7/19/22  
Photo No. 177  
Direction: Southwest  
Comments: Looking downstream  
from the upper limit of Stream  
S31



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



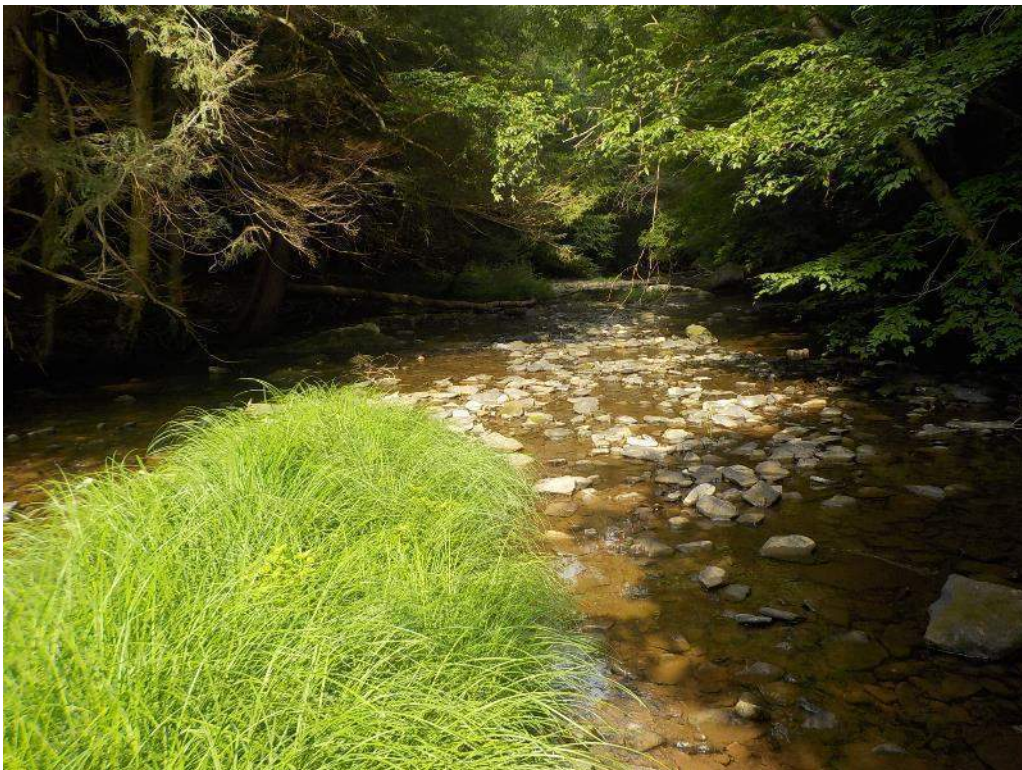
Photographer: Connor Sullivan

Date: 7/19/22

Photo No. 178

Direction: South

Comments: Looking upstream along Stream S32, Piney Run, from near the lower limit of the upper section



Photographer: Connor Sullivan

Date: 7/20/22

Photo No. 179

Direction: West

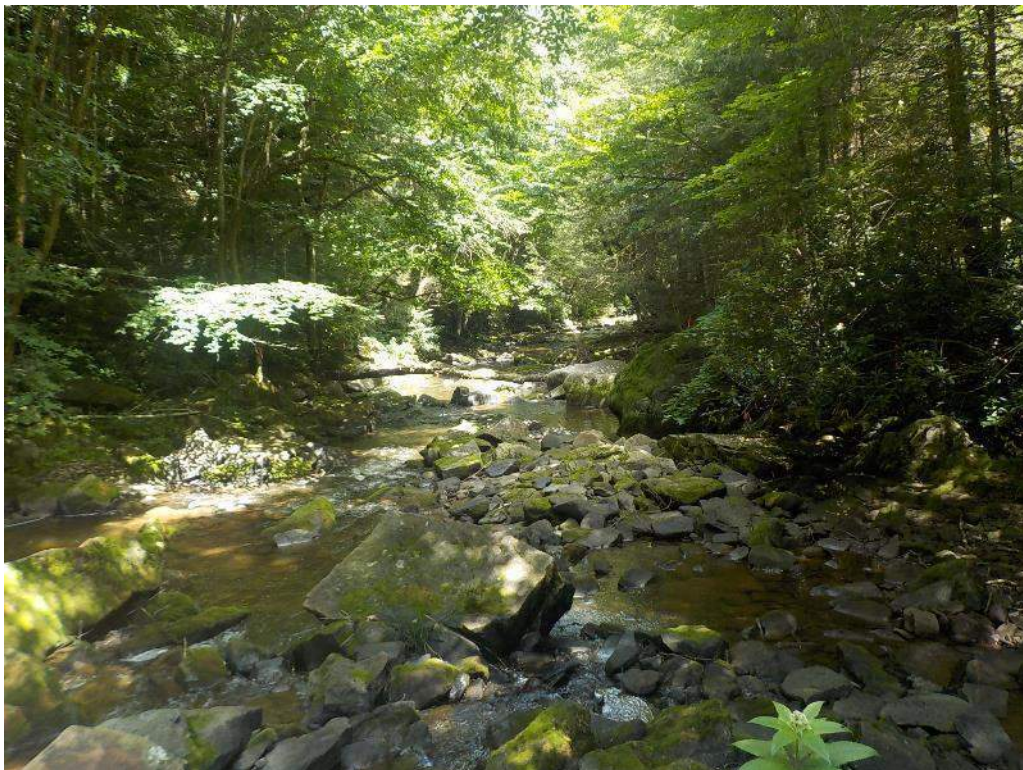
Comments: Looking downstream along Stream S32, Piney Run, from near the upper limit of the upper section



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/3/22  
Photo No. 180  
Direction: Southeast  
Comments: Looking upstream  
along Stream S32, Piney Creek,  
from near the lower limit of the  
lower section



Photographer: Connor Sullivan  
Date: 8/3/22  
Photo No. 181  
Direction: North  
Comments: Looking downstream  
along Stream S32, Piney Creek,  
from near the upper limit of the  
lower section



# Photographic Record



Photographer: Connor Sullivan  
Date: 7/20/22  
Photo No. 182  
Direction: Southeast  
Comments: Looking upstream  
along Stream S33, toward the dry  
channel at the lower limit of the  
stream



Photographer: Connor Sullivan  
Date: 7/20/22  
Photo No. 183  
Direction: Northwest  
Comments: Looking downstream  
along Stream S33, toward the  
inundated portion of the channel



# Photographic Record



Photographer: Connor Sullivan  
Date: 7/20/22  
Photo No. 184  
Direction: Southwest  
Comments: Looking upstream  
along Stream S34 from near the  
lower limit



Photographer: Connor Sullivan  
Date: 7/20/22  
Photo No. 185  
Direction: Northeast  
Comments: Looking downstream  
along Stream S34



# Photographic Record



Photographer: Connor Sullivan  
Date: 7/20/22  
Photo No. 184  
Direction: Southwest  
Comments: Looking upstream  
along Stream S34 from near the  
lower limit



Photographer: Connor Sullivan  
Date: 7/20/22  
Photo No. 185  
Direction: Northeast  
Comments: Looking downstream  
along Stream S34



# Photographic Record

Photos 186-190 removed due to a change in the LOD.  
Resources no longer within the study area.



Photographer: Connor Sullivan  
Date: 7/21/22  
Photo No. 191  
Direction: South  
Comments: Looking upstream  
along Stream S36, from the  
channel of Stream S32

# Photographic Record

Photos 192-196 removed due to a change in the LOD.  
Resources no longer within the study area.



Photographer: Connor Sullivan  
Date: 7/21/22  
Photo No. 197  
Direction: Southwest  
Comments: Looking upstream  
along Stream S38, from the  
lower limit



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/1/22  
Photo No. 198  
Direction: Northwest  
Comments: Looking downstream  
along Stream S38, from near the  
upper limit

Photo 199 removed due to a change in the LOD. Resource is no longer within the study area.



# Photographic Record



Photographer: Connor Sullivan  
Date: 4/27/2023  
Photo No. 200  
Direction: Southwest  
Comments: Looking upstream  
along Stream S38B



Photographer: Connor Sullivan  
Date:  
Photo No. 201  
Direction: South  
Comments: Looking upstream  
along Stream S38C, from near  
the confluence with Stream S38



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/2/22  
Photo No. 202  
Direction: South  
Comments: Looking upstream  
along Stream S39 Meadow Run,  
from near the lower limit of the  
upper portion of the stream



Photographer: Connor Sullivan  
Date: 8/24/22  
Photo No. 203  
Direction: Northwest  
Comments: Looking upstream  
along Stream S39, Meadow Run,  
from near center of the lower  
portion of the stream



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/24/22  
Photo No. 204  
Direction: east  
Comments: Looking upstream  
along Stream S39, Meadow Run,  
from near the upper limit of the  
lower portion



Photographer: Connor Sullivan  
Date: 8/2/22  
Photo No. 205  
Direction: Southwest  
Comments: Looking upstream  
along Stream S39A, from the  
lower limit



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/2/22  
Photo No. 206  
Direction: Northwest  
Comments: Looking upstream  
along Stream S39A, from the  
upper limit



Photographer: Connor Sullivan  
Date: 8/25/22  
Photo No. 207  
Direction: Southwest  
Comments: Looking downstream  
along Stream S39C, from the  
upper limit



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/25/22  
Photo No. 208  
Direction: Northwest  
Comments: Looking downstream  
along Stream S39D, from the  
upper limit

Photo 209 removed due to a change in the LOD. Resource is no longer within the study area.



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/2/22  
Photo No. 210  
Direction: Northwest  
Comments: Looking downstream  
along Stream S41, from the  
center of channel



Photographer: Connor Sullivan  
Date: 8/2/22  
Photo No. 211  
Direction: Northeast  
Comments: Looking upstream  
along Stream S42, from near the  
upper limit



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/3/22  
Photo No. 212  
Direction: Northwest  
Comments: Looking across the lower portion of Stream S43, where it emerges at an access road before recharging back to the ground.



Photographer: Connor Sullivan  
Date: 8/3/22  
Photo No. 213  
Direction: Northeast  
Comments: Looking upstream along the upper portion of Stream S43, facing the culvert under Piney Run Road



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/3/22  
Photo No. 214  
Direction: Southeast  
Comments: Looking upstream  
along Stream S43A, from the  
confluence with Stream S43.



Photographer: Connor Sullivan  
Date: 8/3/22  
Photo No. 215  
Direction: East  
Comments: Looking upstream  
along Stream S44, facing the  
culvert under Piney Run Road  
from the lower limit of the  
stream



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/3/22  
Photo No. 216  
Direction: East  
Comments: Looking upstream along Stream S44, facing the culvert under Piney Run Road from the lower limit of the stream



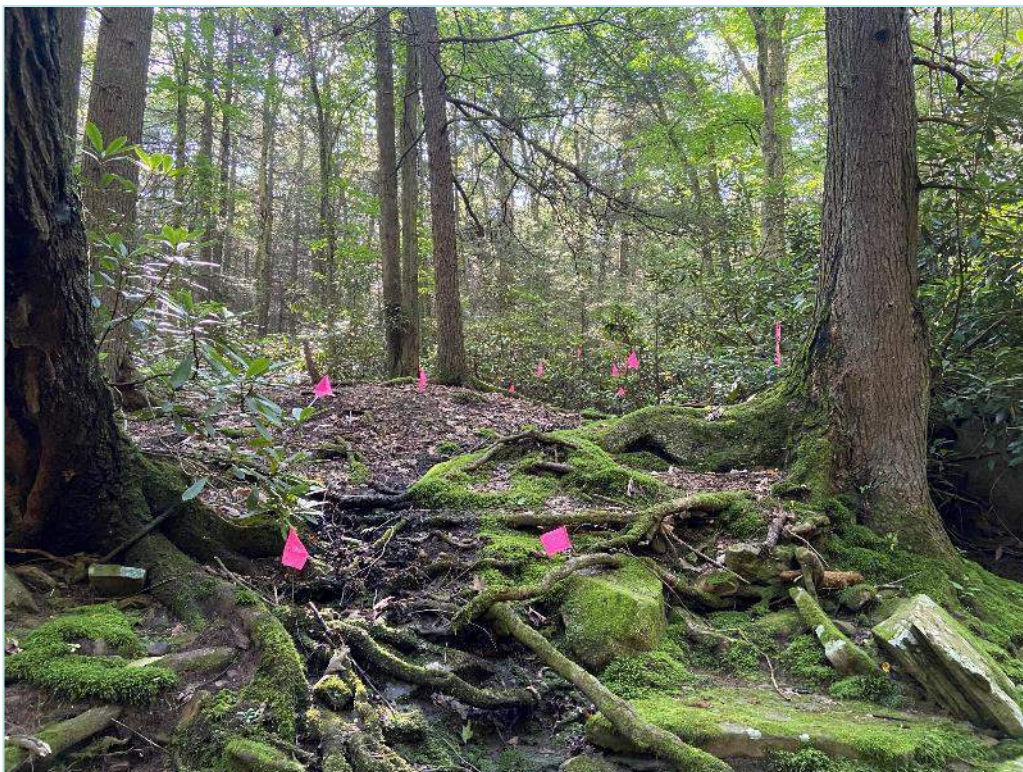
Photographer: Connor Sullivan  
Date: 8/3/22  
Photo No. 217  
Direction: Northwest  
Comments: Looking downstream along Stream S44, from the upstream side of Piney Run Road



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/3/22  
Photo No. 218  
Direction: Southeast  
Comments: Looking upstream  
toward the seep area at the upper  
limit of Stream S45



Photographer: Connor Sullivan  
Date: 8/3/22  
Photo No. 219  
Direction: East  
Comments: Looking upstream  
along Stream S45A, from the  
confluence with Stream S32



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan  
Date: 8/4/22  
Photo No. 220  
Direction: Southeast  
Comments: Looking upstream  
along Stream S46, from near the  
confluence with S46A



Photographer: Connor Sullivan  
Date: 8/4/22  
Photo No. 221  
Direction: Southwest  
Comments: Looking upstream  
along Stream S46A, from near  
the confluence with Stream S46



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/4/22

Photo No. 222

Direction: Northwest

Comments: Looking downstream  
along Stream S47



Photographer: Connor Sullivan

Date: 8/23/22

Photo No. 223

Direction: East

Comments: Looking upstream  
along Stream S48



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/23/22  
Photo No. 226  
Direction: Southeast  
Comments: Looking upstream  
along Stream S50, from upstream  
of the confluence with Wetland  
W58



Photographer: Connor Sullivan  
Date: 8/24/22  
Photo No. 227  
Direction: South  
Comments: Looking downstream  
along Stream S51, from the  
confluence with Stream S51A



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/24/22  
Photo No. 228  
Direction: North  
Comments: Looking upstream  
along Stream S51A, from the  
confluence with Stream S51



Photographer: Connor Sullivan  
Date: 8/23/22  
Photo No. 229  
Direction: South  
Comments: Looking upstream  
along Stream S53, upstream of  
he blown out portion



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/24/22  
Photo No. 230  
Direction: North  
Comments: Looking upstream  
along Stream S53, upstream of  
the blown out portion



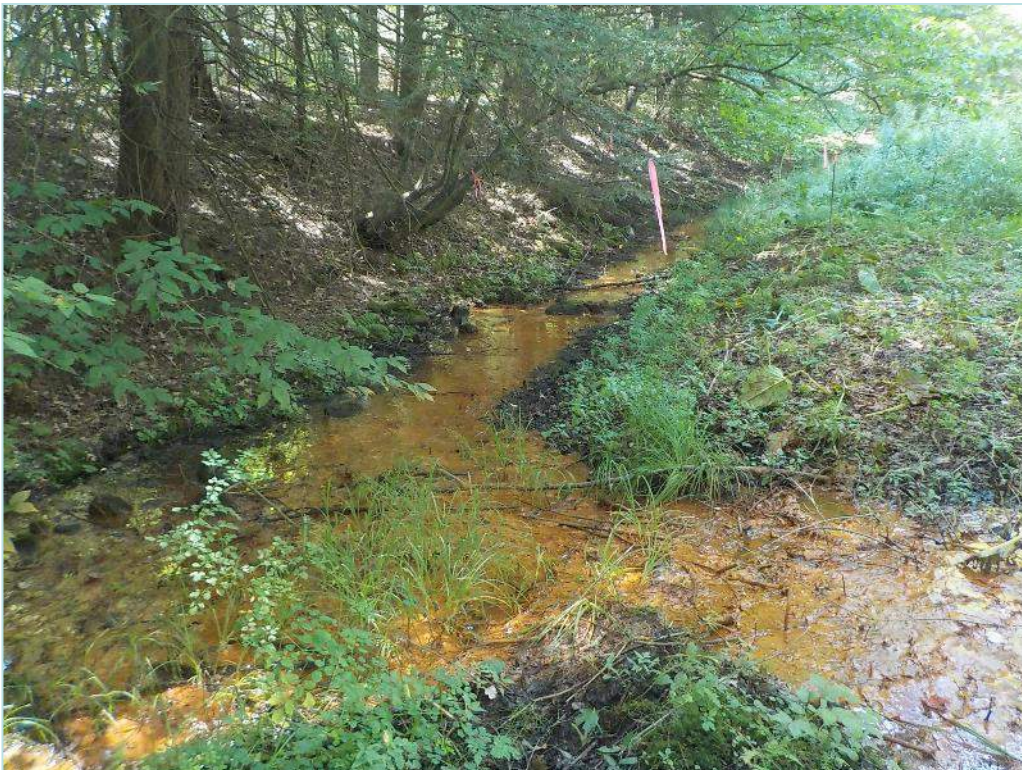
Photographer: Connor Sullivan  
Date: 8/24/22  
Photo No. 231  
Direction: Southwest  
Comments: Looking downstream  
along Stream S54, facing toward  
Stream S39



# Photographic Record



Photographer: Connor Sullivan  
Date: 8/24/22  
Photo No. 232  
Direction: Northeast  
Comments: Looking upstream  
along Stream S55, upstream of  
the blown out portion



Photographer: Connor Sullivan  
Date: 8/24/22  
Photo No. 233  
Direction: West  
Comments: Looking across the  
upper limit of Stream S55, from  
within Wetland W67



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



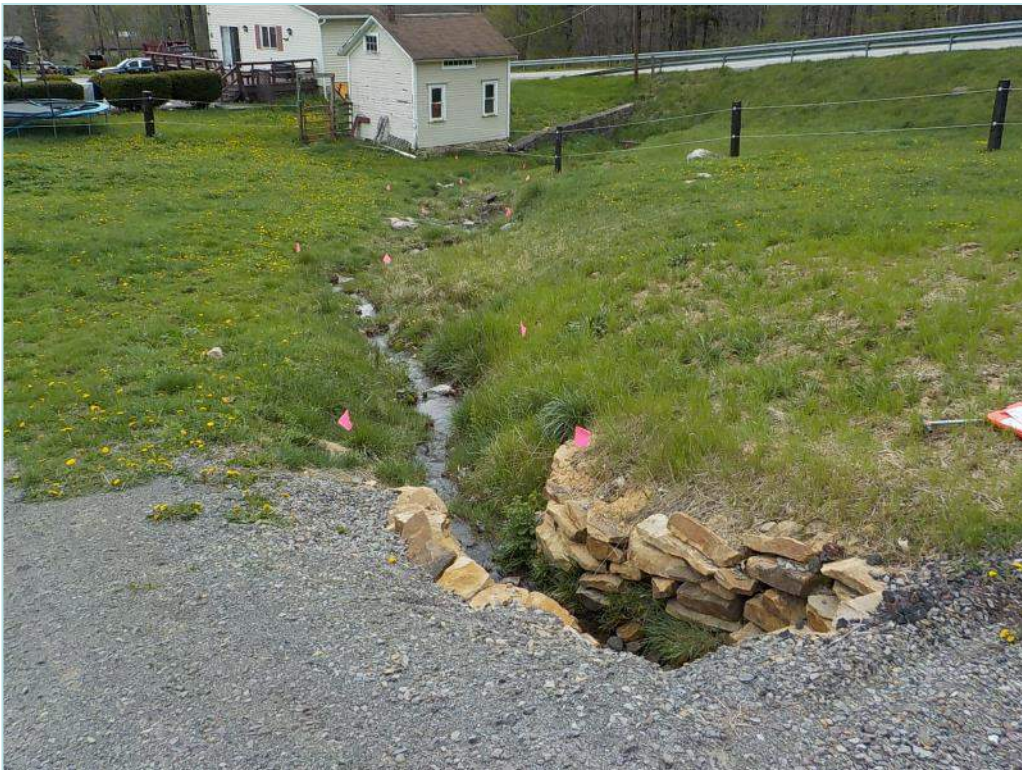
Photographer: Connor Sullivan

Date: 4/24/23

Photo No. 270

Direction: Northeast

Comments: Looking upstream  
along Stream S2C



Photographer: Connor Sullivan

Date: 4/24/23

Photo No. 271

Direction: Northwest

Comments: Looking downstream  
along Stream S2D



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 4/24/23

Photo No. 272

Direction: South

Comments: Looking upstream  
along Stream S2E



Photographer: Clayton Frey

Date: 4/27/23

Photo No. 273

Direction: Northeast

Comments: Looking upstream  
along Stream S53A



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 4/25/23

Photo No. 274

Direction: East

Comments: Looking upstream  
along Stream S57



Photographer: Connor Sullivan

Date: 4/27/23

Photo No. 275

Direction: Northeast

Comments: Looking downstream  
along Stream S58



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/16/23

Photo No. 276

Direction: Southwest

Comments: Looking upstream  
along Stream S59



Photographer: Connor Sullivan

Date: 5/16/23

Photo No. 277

Direction: Northwest

Comments: Looking downstream  
along Stream S60



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Clayton Frey

Date: 5/17/23

Photo No. 278

Direction: Southeast

Comments: Looking upstream  
along Stream S61

Photo 279 removed due to a change in the LOD. Resource is no longer within the study area.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



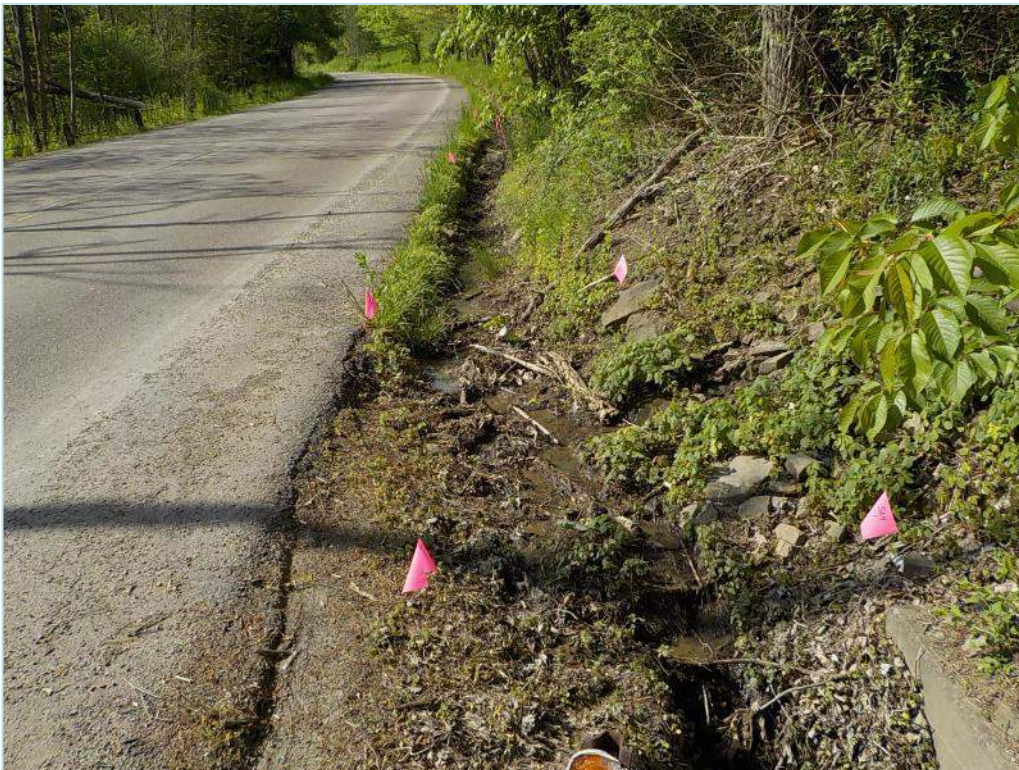
Photographer: Connor Sullivan

Date: 5/17/23

Photo No. 280

Direction: North

Comments: Looking downstream  
along Stream S63



Photographer: Connor Sullivan

Date: 5/17/23

Photo No. 281

Direction: South

Comments: Looking upstream  
along Stream S64



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan  
Date: 5/31/23  
Photo No. 282  
Direction: Southwest  
Comments: Looking upstream  
along Stream S65



Photographer: Connor Sullivan  
Date: 5/31/23  
Photo No. 283  
Direction: South  
Comments: Looking upstream  
along Stream S66



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/31/23

Photo No. 284

Direction: Southwest

Comments: Looking downstream  
along Stream S67



Photographer: Connor Sullivan

Date: 5/31/23

Photo No. 285

Direction: Southwest

Comments: Looking upstream  
along Stream S68



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/23/22

Photo No. 1

Direction: Southeast

Comments: Wetland W1 –  
Across DP1



Photographer: Connor Sullivan

Date: 6/3/22

Photo No. 2

Direction: Northwest

Comments: W1



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/1/22

Photo No. 3

Direction:

Comments: Wetland W1 – across  
DP3



Photographer: Connor Sullivan

Date: 5/24/22

Photo No. 4

Direction: Northwest

Comments: Wetland W2



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/24/22

Photo No. 5

Direction: South

Comments: Wetland W2

Photo 6 removed due to a change in the LOD. Resource is no longer within the study area.

# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road

Photo 7 removed due to a change in the LOD. Resource is no longer within the study area.



Photographer: Connor Sullivan

Date: 5/24/22

Photo No. 8

Direction: Northeast

Comments: Wetland W4



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/24/22

Photo No. 9

Direction: Southeast

Comments: Wetland W5



Photographer: Connor Sullivan

Date: 5/24/22

Photo No. 10

Direction: Northwest

Comments: Wetland W5



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan  
Date: 5/24/22  
Photo No. 11  
Direction: Northwest  
Comments: Wetland W6



Photographer: Connor Sullivan  
Date: 5/24/22  
Photo No. 12  
Direction: Southeast  
Comments: Wetland W6



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/25/22

Photo No. 13

Direction: North

Comments: Wetland W7



Photographer: Connor Sullivan

Date: 5/25/22

Photo No. 14

Direction: South

Comments: Wetland W7



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/25/22

Photo No. 15

Direction: South

Comments: Wetland W7



Photographer: Connor Sullivan

Date: 5/24/22

Photo No. 16

Direction: South

Comments: Wetland W7A



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/25/22

Photo No. 17

Direction: North

Comments: Wetland W8



Photographer: Connor Sullivan

Date: 5/25/22

Photo No. 18

Direction: Southeast

Comments: Wetland W9



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/25/22

Photo No. 19

Direction: Northeast

Comments: Wetland W9

Photo 20 removed due to a change in the LOD. Resource is no longer within the study area.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/25/22

Photo No. 21

Direction: Northwest

Comments: Wetland W11



Photographer: Connor Sullivan

Date: 5/25/22

Photo No. 22

Direction: Northwest

Comments: Wetland W11



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/26/22

Photo No. 23

Direction: Southwest

Comments: Wetland W11



Photographer: Connor Sullivan

Date: 5/24/22

Photo No. 24

Direction: West

Comments: Wetland W11



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/2/22

Photo No. 25

Direction: North

Comments: Wetland W12



Photographer: Connor Sullivan

Date: 6/2/22

Photo No. 26

Direction: Southeast

Comments: Wetland W12



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road

Photo 27 removed due to a change in the LOD. Resource is no longer within the study area.



Photographer: Connor Sullivan

Date: 6/2/22

Photo No. 28

Direction: South

Comments: Wetland W14



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/8/22

Photo No. 29

Direction: South

Comments: Wetland W15



Photographer: Connor Sullivan

Date: 6/8/22

Photo No. 30

Direction: Southwest

Comments: Wetland W15



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/8/22

Photo No. 31

Direction: North

Comments: Wetland W15



Photographer: Connor Sullivan

Date: 6/8/22

Photo No. 32

Direction: South

Comments: Wetland W16



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/9/22

Photo No. 33

Direction: Southeast

Comments: Wetland W17



Photographer: Connor Sullivan

Date: 6/9/22

Photo No. 34

Direction:

Comments: Wetland W17 –  
across DP2



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/9/22

Photo No. 35

Direction: Southeast

Comments: Wetland W17



Photographer: Connor Sullivan

Date: 6/9/22

Photo No. 36

Direction: Northwest

Comments: Wetland W17 –  
across DP3



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/9/22

Photo No. 37

Direction: Northeast

Comments: Wetland W18



Photographer: Connor Sullivan

Date: 6/9/22

Photo No. 38

Direction: East

Comments: Wetland W18



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/8/22

Photo No. 39

Direction: Northeast

Comments: Wetland W19



Photographer: Connor Sullivan

Date: 6/8/22

Photo No. 40

Direction: Southeast

Comments: Wetland W19



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/20/22

Photo No. 41

Direction: Northeast

Comments: Wetland W20



Photographer: Connor Sullivan

Date: 6/20/22

Photo No. 42

Direction: North

Comments: Wetland W21



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/20/22

Photo No. 43

Direction: Southeast

Comments: Wetland W21



Photographer: Connor Sullivan

Date: 6/20/22

Photo No. 44

Direction: Southeast

Comments: Wetland W22



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/21/22

Photo No. 45

Direction: Northeast

Comments: Wetland W23



Photographer: Connor Sullivan

Date: 6/21/22

Photo No. 46

Direction: Northeast

Comments: Wetland W23



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/22/22

Photo No. 47

Direction: East

Comments: Wetland W24



Photographer: Connor Sullivan

Date: 6/23/22

Photo No. 48

Direction: Northwest

Comments: Wetland W25



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/23/22

Photo No. 49

Direction: Southeast

Comments: Wetland W26



Photographer: Connor Sullivan

Date: 6/23/22

Photo No. 50

Direction: Northwest

Comments: Wetland W27



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/23/22

Photo No. 51

Direction: North

Comments: Wetland W28



Photographer: Connor Sullivan

Date: 6/23/22

Photo No. 52

Direction: West

Comments: Wetland W28



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/12/22

Photo No. 53

Direction: East

Comments: Wetland W29



Photographer: Connor Sullivan

Date: 7/12/22

Photo No. 54

Direction: East

Comments: Wetland W29



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



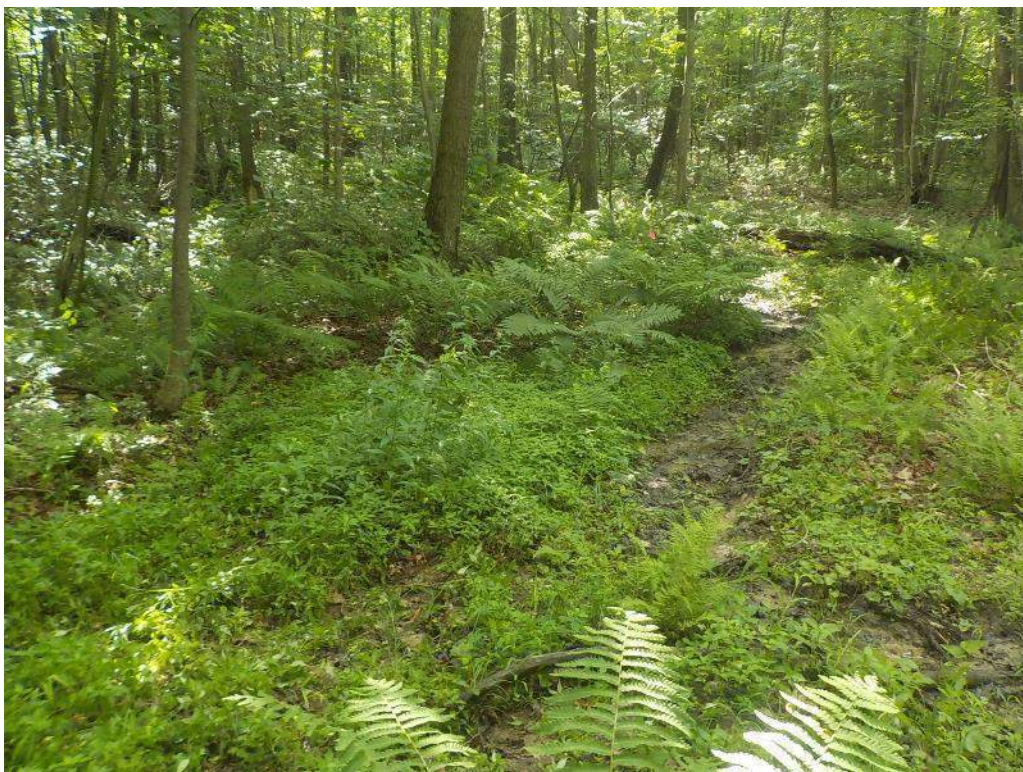
Photographer: Connor Sullivan

Date: 7/13/22

Photo No. 55

Direction: East

Comments: Wetland W30



Photographer: Connor Sullivan

Date: 7/13/22

Photo No. 56

Direction: Northeast

Comments: Wetland W30



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/13/22

Photo No. 59

Direction: Southeast

Comments: Wetland W32

Photo 60 removed due to a change in the LOD. Resource is no longer within the study area.

# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road

Photo 61 removed due to a change in the LOD. Resource is no longer within the study area.



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 62

Direction: Northeast

Comments: Wetland W34



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 63

Direction: Southeast

Comments: Wetland W35



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 64

Direction: Southeast

Comments: Wetland W35



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/14/22

Photo No. 65

Direction: North

Comments: Wetland W36



Photographer: Connor Sullivan

Date: 7/20/22

Photo No. 66

Direction: Southeast

Comments: Wetland W37



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 7/15/22

Photo No. 67

Direction: East

Comments: Wetland W38

Photo 68 removed due to a change in the LOD. Resource is no longer within the study area.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan  
Date: 7/21/22  
Photo No. 69  
Direction: Southeast  
Comments: Wetland W40



Photographer: Connor Sullivan  
Date: 8/1/22  
Photo No. 70  
Direction: North  
Comments: Wetland W41



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/1/22

Photo No. 71

Direction: Southeast

Comments: Wetland W41



Photographer: Connor Sullivan

Date: 8/1/22

Photo No. 72

Direction: West

Comments: Wetland W42



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/2/22

Photo No. 75

Direction: North

Comments: Wetland W44



Photographer: Connor Sullivan

Date: 8/2/22

Photo No. 76

Direction: Northwest

Comments: Wetland W45



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/2/22

Photo No. 77

Direction: Northeast

Comments: Wetland W46



Photographer: Connor Sullivan

Date: 8/2/22

Photo No. 78

Direction: South

Comments: Wetland W47



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/3/22

Photo No. 79

Direction: North

Comments: Wetland W48



Photographer: Connor Sullivan

Date: 8/3/22

Photo No. 80

Direction: Northeast

Comments: Wetland W49



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/4/22

Photo No. 81

Direction: East

Comments: Wetland W50



Photographer: Connor Sullivan

Date: 8/4/22

Photo No. 82

Direction: Northwest

Comments: Wetland W50



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/4/22

Photo No. 83

Direction: South

Comments: Wetland W51

Photo 84 removed due to a change in the LOD. Resource is no longer within the study area.



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/4/22

Photo No. 85

Direction: East

Comments: Wetland W53



Photographer: Connor Sullivan

Date: 8/22/22

Photo No. 86

Direction: Northeast

Comments: Wetland W55



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/22/22

Photo No. 87

Direction: Southwest

Comments: Wetland W56

Photo 88 removed due to a change in the LOD. Resource is no longer within the study area.

# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road

Photo 89 removed due to a change in the LOD. Resource is no longer within the study area.



Photographer: Connor Sullivan

Date: 8/23/22

Photo No. 90

Direction: North

Comments: Wetland W58



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan  
Date: 8/24/22  
Photo No. 91  
Direction: Southwest  
Comments: Wetland W59



Photographer: Connor Sullivan  
Date: 8/24/22  
Photo No. 92  
Direction: Southwest  
Comments: Wetland W60



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/24/22

Photo No. 93

Direction: Northwest

Comments: Wetland W61



Photographer: Connor Sullivan

Date: 8/24/22

Photo No. 94

Direction: North

Comments: Wetland W62



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



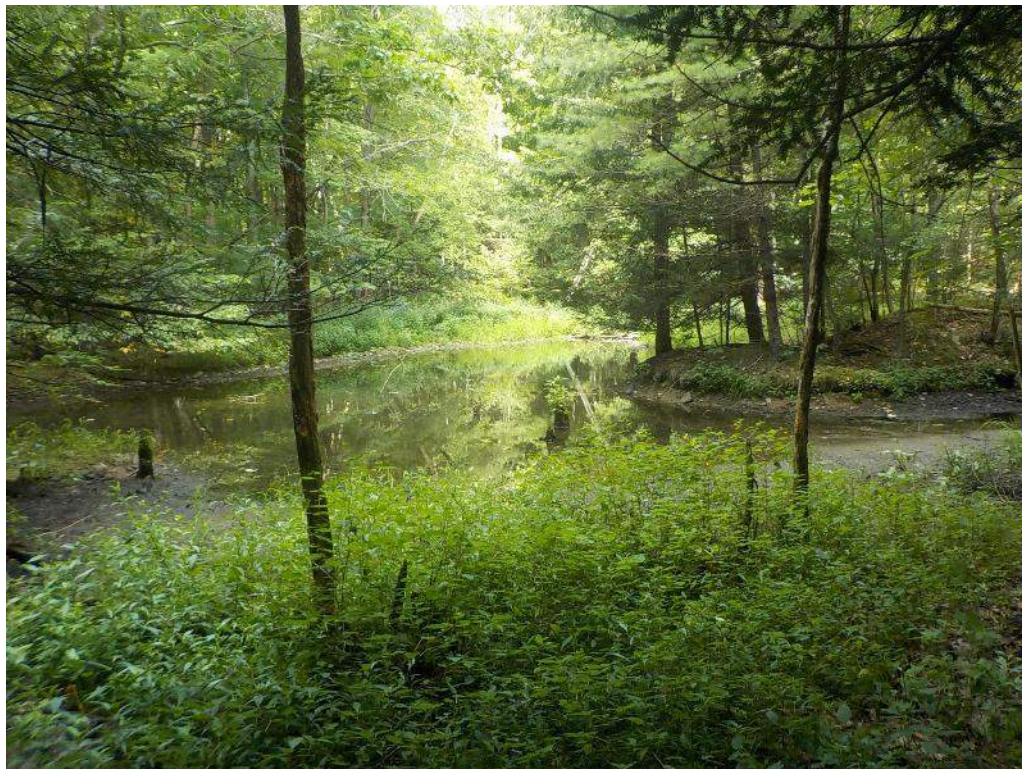
Photographer: Connor Sullivan

Date: 8/24/22

Photo No. 95

Direction: Southwest

Comments: Wetland W63



Photographer: Connor Sullivan

Date: 8/25/22

Photo No. 96

Direction: Northeast

Comments: Wetland W64 – Near DP1



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/25/22

Photo No. 97

Direction: Southeast

Comments: Wetland W64 –  
Across DP2



Photographer: Connor Sullivan

Date: 8/25/22

Photo No. 98

Direction: Northeast

Comments: Wetland W65



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/24/22

Photo No. 99

Direction: Southwest

Comments: Wetland W66



Photographer: Connor Sullivan

Date: 8/25/22

Photo No. 100

Direction: Southeast

Comments: Wetland W67



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/25/22

Photo No. 101

Direction: West

Comments: Wetland W67



Photographer: Connor Sullivan

Date: 8/25/22

Photo No. 102

Direction: East

Comments: Wetland W68



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 8/25/22

Photo No. 103

Direction: North

Comments: Wetland W69



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan  
Date: 4/25/23  
Photo No. 234  
Direction: Northeast  
Comments: Wetland W70



Photographer: Connor Sullivan  
Date: 4/26/23  
Photo No. 235  
Direction: Southwest  
Comments: Wetland W71



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 4/27/23

Photo No. 236

Direction: Northeast

Comments: Wetland W72



Photographer: Connor Sullivan

Date: 4/27/23

Photo No. 237

Direction: South

Comments: Wetland W73



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 4/27/23

Photo No. 238

Direction: Southwest

Comments: Wetland W74



Photographer: Connor Sullivan

Date: 5/15/23

Photo No. 239

Direction: South

Comments: Wetland W75



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/16/23

Photo No. 240

Direction: Northeast

Comments: Wetland W76



Photographer: Connor Sullivan

Date: 6/1/23

Photo No. 241

Direction: Southwest

Comments: Wetland W77



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Clayton Frey  
Date: 5/16/23  
Photo No. 242  
Direction: Northwest  
Comments: Wetland W78



Photographer: Connor Sullivan  
Date: 5/16/23  
Photo No. 243  
Direction: Southeast  
Comments: Wetland W78A



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Clayton Frey

Date: 5/16/23

Photo No. 244

Direction: Southwest

Comments: Wetland W79



Photographer: Connor Sullivan

Date: 5/16/23

Photo No. 245

Direction: Northeast

Comments: Wetland W80



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



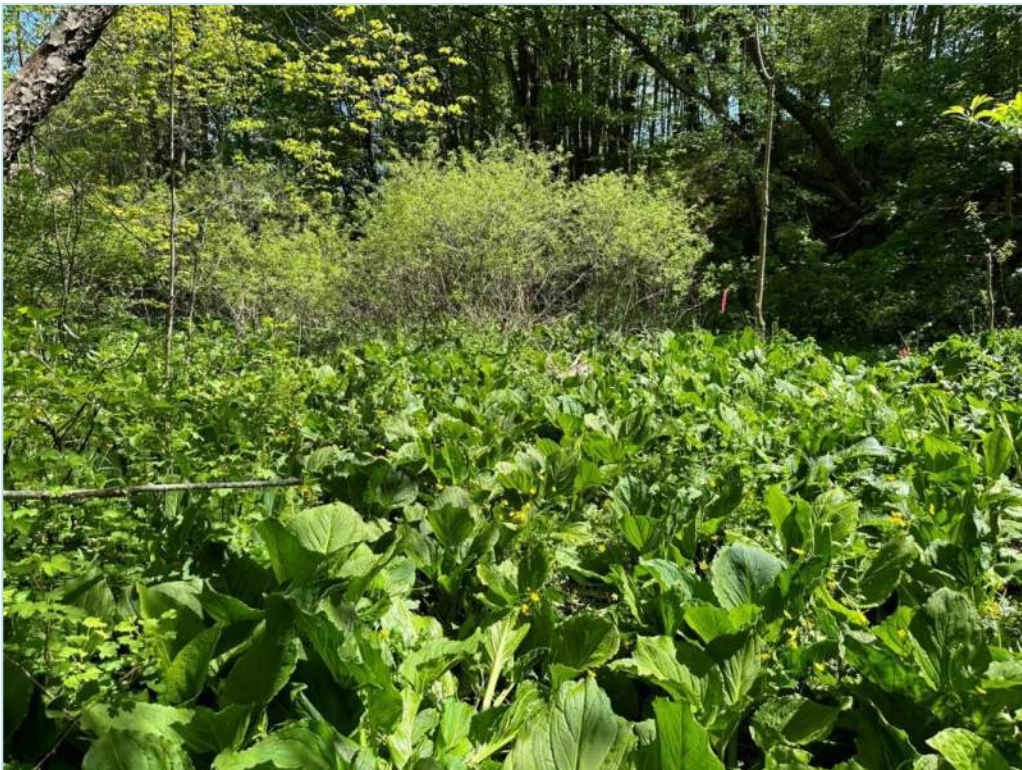
Photographer: Clayton Frey

Date: 5/17/23

Photo No. 246

Direction: South

Comments: Wetland W81



Photographer: Clayton Frey

Date: 5/17/23

Photo No. 248

Direction: South

Comments: Wetland W83

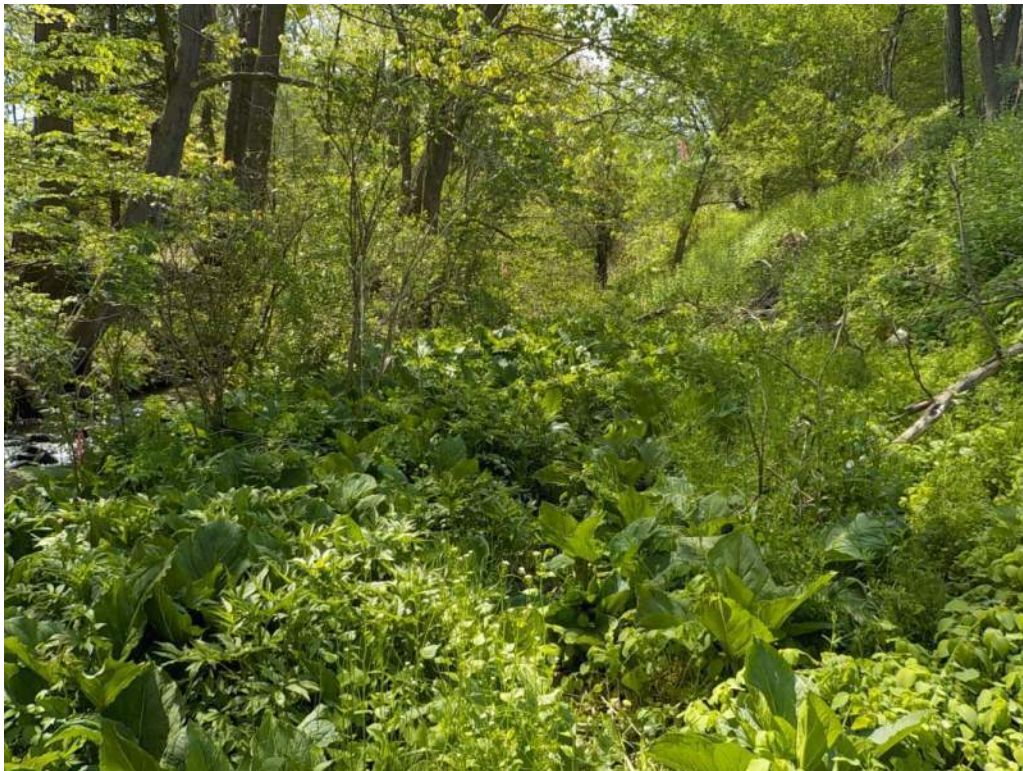


# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



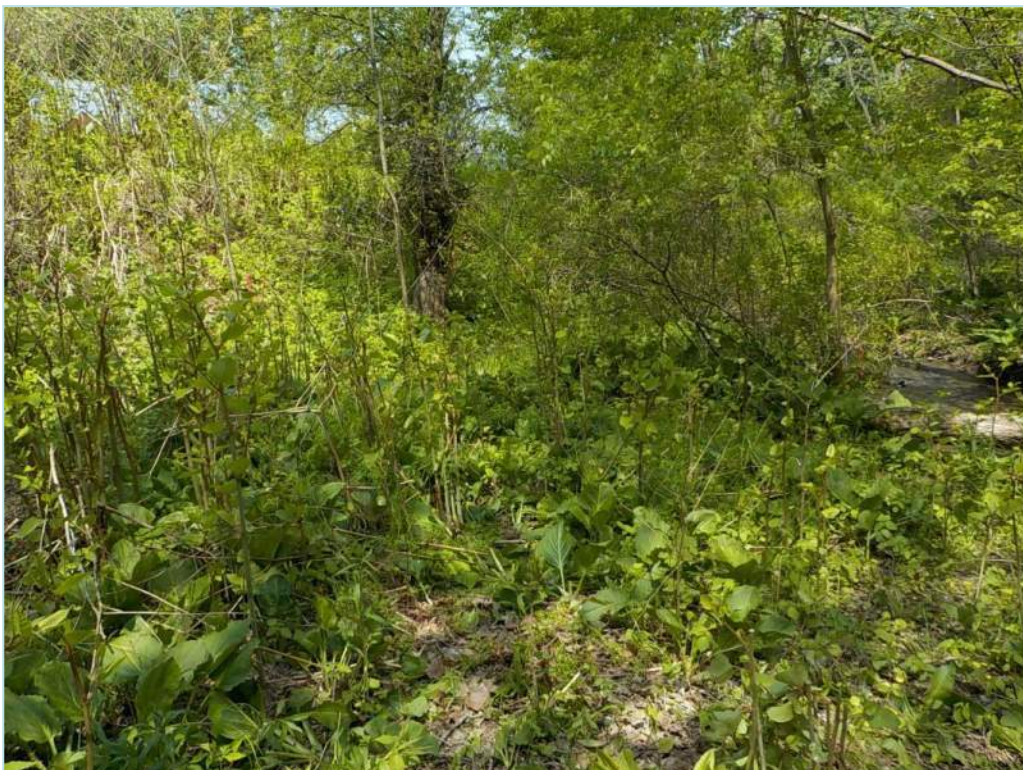
Photographer: Connor Sullivan

Date: 5/18/23

Photo No. 250

Direction: South

Comments: Wetland W85



Photographer: Connor Sullivan

Date: 5/18/23

Photo No. 251

Direction: Northwest

Comments: Wetland W86



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan  
Date: 5/18/23  
Photo No. 252  
Direction: Southwest  
Comments: Wetland W87



Photographer: Connor Sullivan  
Date: 5/18/23  
Photo No. 253  
Direction: Northwest  
Comments: Wetland W88



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



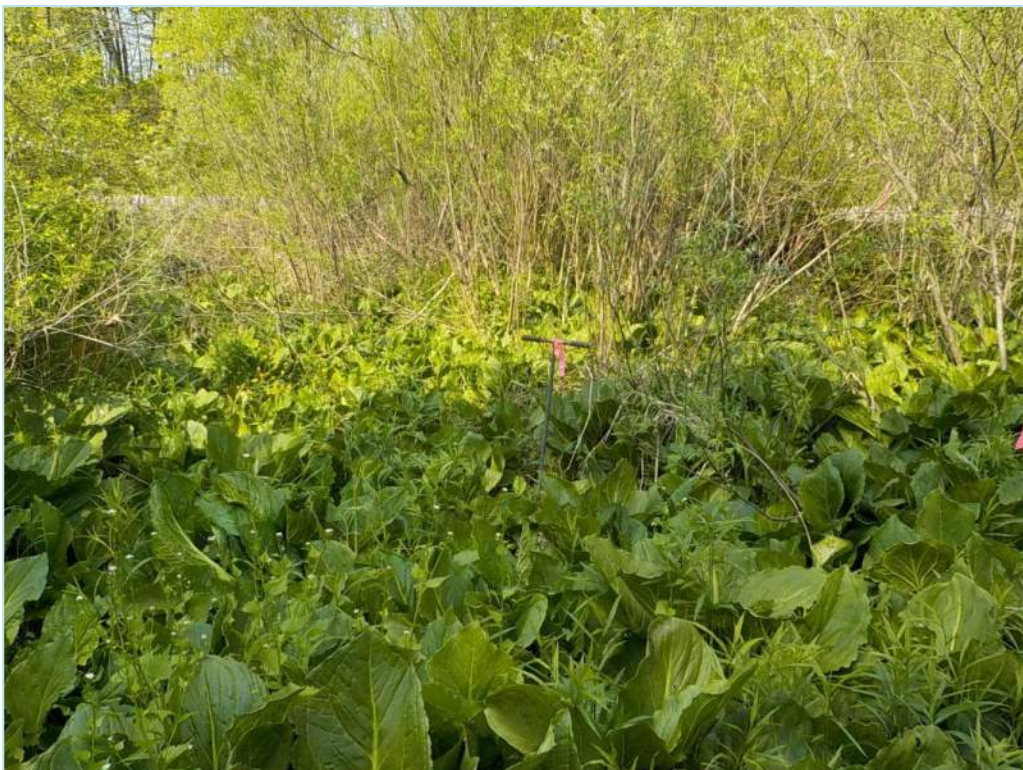
Photographer: Connor Sullivan

Date: 5/18/23

Photo No. 254

Direction: North

Comments: Wetland W89 - PEM



Photographer: Connor Sullivan

Date: 5/18/23

Photo No. 255

Direction: Northeast

Comments: Wetland W89 - PFO



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



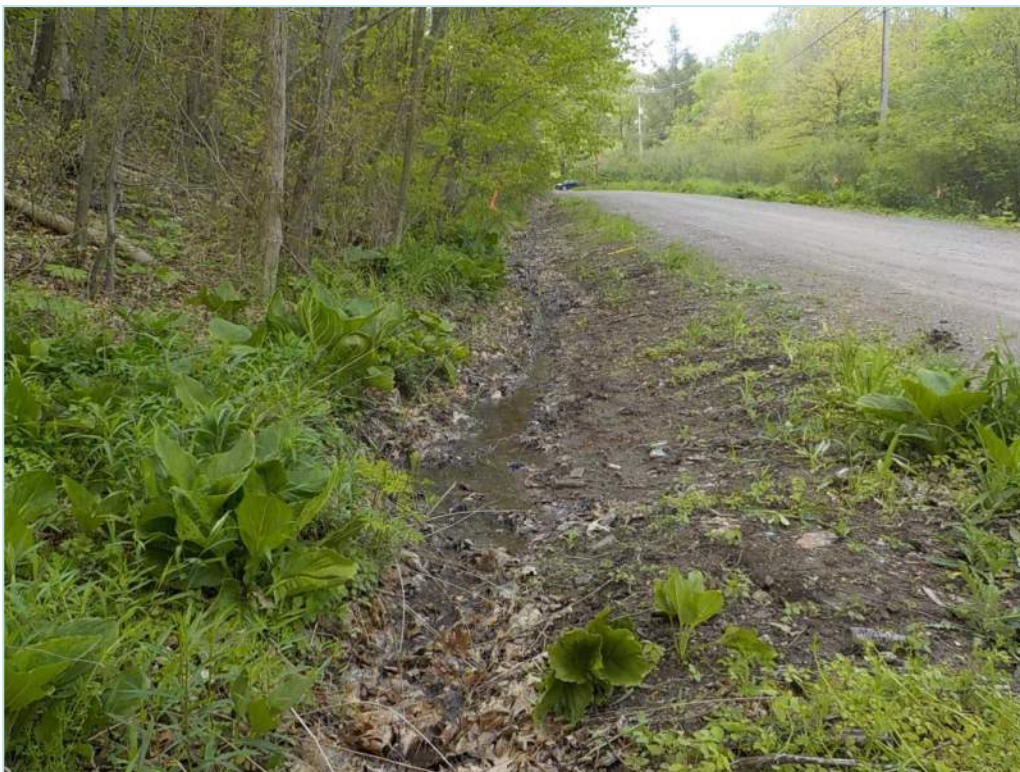
Photographer: Connor Sullivan

Date: 5/18/23

Photo No. 256

Direction: Southwest

Comments: Wetland W90



Photographer: Connor Sullivan

Date: 5/19/23

Photo No. 257

Direction: South

Comments: Wetland W91



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/19/23

Photo No. 260

Direction: Southwest

Comments: Wetland W94



Photographer: Connor Sullivan

Date: 5/31/23

Photo No. 261

Direction: North

Comments: Wetland W96



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/31/23

Photo No. 262

Direction: North

Comments: Wetland W97



Photographer: Connor Sullivan

Date: 5/31/23

Photo No. 263

Direction: East

Comments: Wetland W98



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 5/31/23

Photo No. 264

Direction: Northwest

Comments: Wetland W99



Photographer: Connor Sullivan

Date: 6/1/23

Photo No. 265

Direction: Northwest

Comments: Wetland W100



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/1/23

Photo No. 266

Direction: Southeast

Comments: Wetland W101



Photographer: Connor Sullivan

Date: 6/1/23

Photo No. 267

Direction: East

Comments: Wetland W102



# Photographic Record

## NTM Engineering, Inc.

Agency: Pennsylvania Department of Transportation

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: Connor Sullivan

Date: 6/2/23

Photo No. 268

Direction: Northwest

Comments: Wetland W103



Photographer: Connor Sullivan

Date: 6/2/23

Photo No. 269

Direction: Southeast

Comments: Wetland W103A



***Maryland***

# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk

Date: 8/1/22

Photo No. 1

Direction: East

Comments: Overview of WL004-WET



Photographer: A. Kaczaniuk

Date: 8/1/22

Photo No. 2

Direction: South

Comments: View of WUS  
WL005 facing upstream from  
flag WL005-004



# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk  
Date: 8/1/22  
Photo No. 3  
Direction: Northeast  
Comments: View of WUS  
WL006 facing upstream from  
flag WL006-008



Photographer: A. Kaczaniuk  
Date: 8/1/22  
Photo No. 4  
Direction: Northwest  
Comments: View of WUS  
WL007 facing upstream from  
between flags WL007-009/010



# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration  
Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk  
Date: 8/1/22  
Photo No. 5  
Direction: Southeast  
Comments: View of WUS  
WL008 facing downstream from  
flag WL008-003



Photographer: A. Kaczaniuk  
Date: 8/2/22  
Photo No. 6  
Direction: Northwest  
Comments: View of Ephemeral  
WL009 facing downstream from  
flag WL009-002



# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk  
Date: 5/15/23  
Photo No. 7  
Direction: Southeast  
Comments: View of WUS  
WL010 facing upstream from  
flag WL010-006



Photographer: A. Kaczaniuk  
Date: 8/2/22  
Photo No. 8  
Direction: East  
Comments: Overview of WL011-  
WET



# Photographic Record

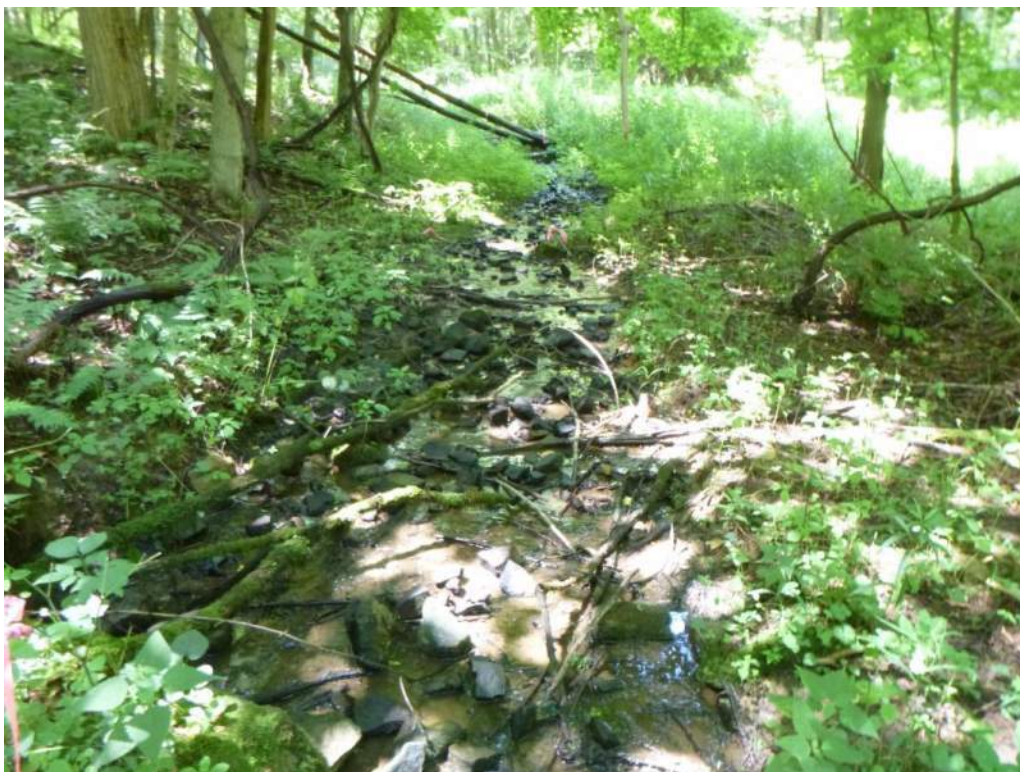
## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk  
Date: 8/2/22  
Photo No. 9  
Direction: South  
Comments: View of WUS  
WL012 facing upstream from  
flag WL012-036



Photographer: A. Kaczaniuk  
Date: 8/2/22  
Photo No. 10  
Direction: South  
Comments: View of WUS  
WL013 facing upstream from  
flag WL013-006

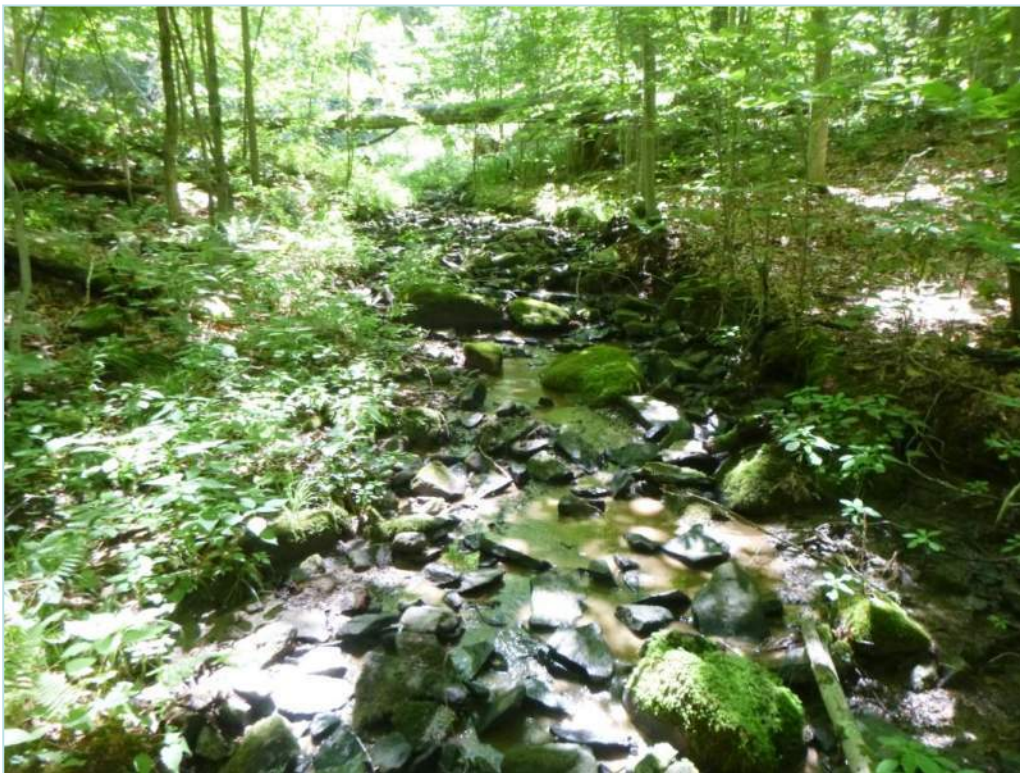


# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk  
Date: 8/2/22  
Photo No. 11  
Direction: South  
Comments: View of WUS  
WL014 facing upstream from  
flag WL014-012



Photographer: A. Kaczaniuk  
Date: 8/3/22  
Photo No. 12  
Direction: East  
Comments: View of WUS  
WL016 facing downstream from  
between flags WL016-014/015



# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk  
Date: 8/3/22  
Photo No. 13  
Direction: South  
Comments: View of WUS  
WL019 facing upstream from  
between flags WL019-004/005



Photographer: A. Kaczaniuk  
Date: 8/3/22  
Photo No. 14  
Direction: East  
Comments: Overview of WP020-  
WET



# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk

Date: 8/3/22

Photo No. 15

Direction: Northwest

Comments: View of WUS

WL021 facing downstream from  
between flags WL021-001/002



Photographer: A. Kaczaniuk

Date: 8/3/22

Photo No. 16

Direction: East

Comments: Overview of WP022-  
WET



# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



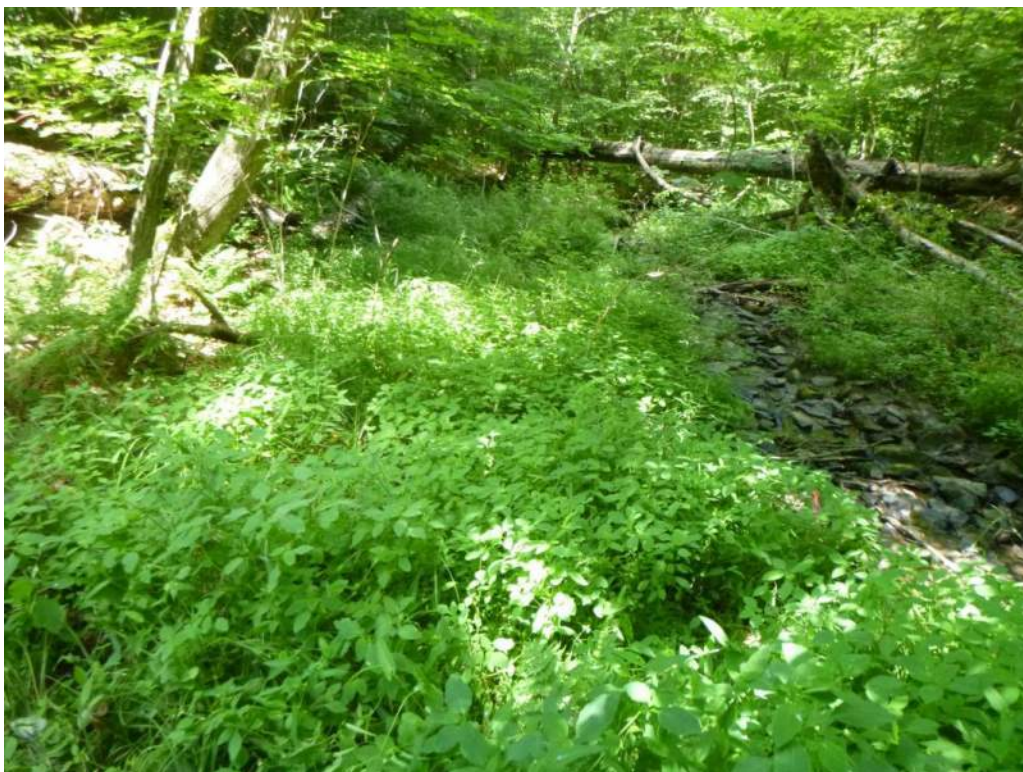
Photographer: A. Kaczaniuk

Date: 8/3/22

Photo No. 17

Direction: Northwest

Comments: Overview of WP024-WET



Photographer: A. Kaczaniuk

Date: 8/3/22

Photo No. 18

Direction: South

Comments: Overview of WP025-WET

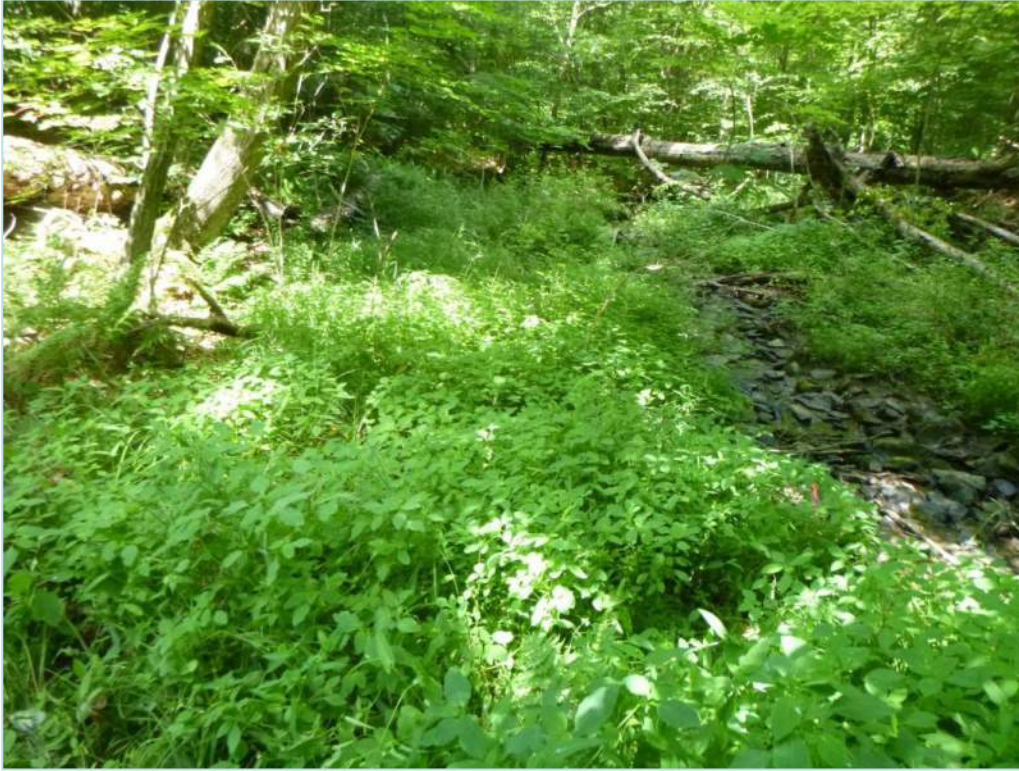


# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk

Date: 8/3/22

Photo No. 19

Direction: South

Comments: Overview of WP025-WET



Photographer: A. Kaczaniuk

Date: 10/27/22

Photo No. 20

Direction: South

Comments: Overview of WP026-WET



# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk

Date: 10/27/22

Photo No. 21

Direction: North

Comments: View of WUS

WL027 facing downstream from  
flag WL027-010



Photographer: A. Kaczaniuk

Date: 10/27/22

Photo No. 22

Direction: East

Comments: Overview of WP029-  
WET



# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk  
Date: 10/27/22  
Photo No. 23  
Direction: East  
Comments: View of WUS  
WL028 facing upstream from  
flag WL028-002



Photographer: A. Kaczaniuk  
Date: 10/27/22  
Photo No. 24  
Direction: Southeast  
Comments: Overview of WP030-  
WET



# Photographic Record

## KCI Technologies, Inc.

Agency: Maryland State Highway Administration

Project: US 219 Meyersdale to Old Salisbury Road



Photographer: A. Kaczaniuk

Date: 5/15/23

Photo No. 25

Direction: Northwest

Comments: Overview of WP031-WET



Photographer: A. Kaczaniuk

Date: 5/15/23

Photo No. 26

Direction: South

Comments: Overview of WP032-WET

## **APPENDIX E**

### ***Aquatic Resources – Trout Waters***

## Aquatic Resources - Trout Waters

US 6219-050 Meyersdale to Old Salisbury Road  
Summit and Elk Lick Townships, Somerset County, Pennsylvania

Stream Name	Stream Type	Stocked Trout	Wild Trout	Surface Connection to Piney Creek
S1*	Perennial	N/A	N/A	N/A
S1A	Intermittent	N/A	N/A	N/A
S2*	Perennial	N/A	N/A	N/A
S2A	Perennial	N/A	N/A	N/A
S2B	Ephemeral	N/A	N/A	N/A
S2C*	Perennial	N/A	N/A	N/A
S2D*	Perennial	N/A	N/A	N/A
S2E	Perennial	N/A	N/A	N/A
S3*	Perennial	N/A	N/A	N/A
S4*	Perennial	N/A	N/A	N/A
S4A*	Ephemeral	N/A	N/A	N/A
S4B	Ephemeral	N/A	N/A	N/A
S5	Perennial	N/A	N/A	N/A
S6	Intermittent	N/A	N/A	N/A
S7	Perennial	N/A	N/A	N/A
S7A*	Perennial	N/A	N/A	N/A
S7B	Perennial	N/A	N/A	N/A
S8*	Perennial	N/A	N/A	N/A
S9	Intermittent	N/A	N/A	N/A
S10*	Perennial	N/A	N/A	N/A
S11*	Intermittent	N/A	N/A	N/A
S12	Perennial	N/A	N/A	N/A
S13	Perennial/ Intermittent	N/A	N/A	N/A
S15*	Perennial	N/A	N/A	N/A
S16*	Perennial	N/A	N/A	N/A
S16A*	Intermittent	N/A	N/A	N/A
S16B*	Perennial	N/A	N/A	N/A
S16C	Intermittent	N/A	N/A	N/A
S16D	Ephemeral	N/A	N/A	N/A
S16E	Perennial	N/A	N/A	N/A
S17	Perennial	N/A	N/A	N/A
S18*	Perennial	N/A	N/A	N/A
S19*	Perennial	N/A	N/A	N/A
S20*	Ephemeral	N/A	N/A	N/A
S21	Perennial	N/A	N/A	N/A
S23*	Ephemeral	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S24	Intermittent	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S25	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S25A	Intermittent	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S26*	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No



## Aquatic Resources - Trout Waters

US 6219-050 Meyersdale to Old Salisbury Road  
Summit and Elk Lick Townships, Somerset County, Pennsylvania

Stream Name	Stream Type	Stocked Trout	Wild Trout	Surface Connection to Piney Creek
S27*	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S28	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S28A*	Intermittent	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S29*	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Not confirmed - possible outside LOD
S29A*	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Not confirmed - possible outside LOD
S30*	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Not confirmed - possible outside LOD
S31*	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Yes
S32*	Perennial	Stocked in Section 2 DU portion, and Section 2 E portion is less than 0.5 miles downstream of stocked section	Wild Trout through whole LOD	N/A
S33*	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Yes
S34*	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Yes
S36	Ephemeral	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Yes
S38*	Perennial	N/A	N/A	N/A
S38A	Ephemeral	N/A	N/A	N/A
S38B	Perennial	N/A	N/A	N/A
S38C	Intermittent	N/A	N/A	N/A
S39*	Perennial	N/A	N/A	N/A
S39A*	Ephemeral	N/A	N/A	N/A
S39C	Perennial	N/A	N/A	N/A
S39D	Intermittent	N/A	N/A	N/A
S41	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S42	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S43	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S43A	Intermittent	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S44	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S45	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Yes
S45A	Perennial	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Yes
S46*	Intermittent	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Not confirmed - possible outside LOD
S46A*	Intermittent	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Not confirmed - possible outside LOD
S46B*	Ephemeral	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	Not confirmed - possible outside LOD
S47*	Ephemeral	N/A	N/A	N/A
S48*	Perennial	N/A	N/A	N/A
S50*	Perennial	N/A	N/A	N/A
S50A	Intermittent	N/A	N/A	N/A

## Aquatic Resources - Trout Waters

US 6219-050 Meyersdale to Old Salisbury Road  
Summit and Elk Lick Townships, Somerset County, Pennsylvania

Stream Name	Stream Type	Stocked Trout	Wild Trout	Surface Connection to Piney Creek
S51	Intermittent	N/A	N/A	N/A
S51A	Ephemeral	N/A	N/A	N/A
S52	Intermittent	N/A	N/A	N/A
S53*	Intermittent	N/A	N/A	N/A
S53A*	Perennial	N/A	N/A	N/A
S54	Intermittent	N/A	N/A	N/A
S55	Ephemeral	N/A	N/A	N/A
S56	Perennial	N/A	N/A	N/A
S57	Perennial/Intermittent	N/A	N/A	N/A
S58*	Perennial	N/A	N/A	N/A
S59	Intermittent	N/A	N/A	N/A
S60	Intermittent	N/A	N/A	N/A
S61*	Perennial	N/A	N/A	N/A
S62*	Perennial	N/A	N/A	N/A
S63	Perennial/ Ephemeral	N/A	N/A	N/A
S64	Perennial	N/A	N/A	N/A
S65	Intermittent	N/A	N/A	N/A
S66	Intermittent	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No
S67	Intermittent	N/A	N/A	N/A
S68	Ephemeral	Within 0.5 miles upstream of stocked section	Within 0.5 miles upstream of wild section	No