



Aquatic Resources Report

December 2023 (Amended Project Description - April 2025)

US 6219, Section 050 Transportation Improvement Project

Meyersdale, PA to Old Salisbury Road, MD



AMENDED 2025 PROJECT DESCRIPTION REVISIONS

Based on the design change from the Draft Environmental Impact Statement (2024) to the Final Environmental Impact Statement (2025) at the northern end of the project area, the description of the Common Segment Improvements has been updated and included below.

It has been confirmed that these updates fall within the current study area discussed in this report.

All impact information for this subject Appendix is discussed in Chapter 3 of the Final Environmental Impact Statement.

2 DETAILED ALTERNATIVES

2.3 Common Segment Improvements

The northern three miles in Pennsylvania all follow the same alignment, starting from the existing Meyersdale interchange. In addition to the three miles being on the same alignment, other improvements described below are being proposed. These improvements include upgrades to portions of Mason-Dixon Highway, an extension of Mountain Road from its northern terminus to Fike Hollow Road on the east side of U.S. 219, in addition a cul-de-sac of Hunsrick Road, and cul-de-sacs on the bisected Clark Road are proposed. These improvements are intended to ensure that local traffic has continued access. These improvements are included with all alternatives being considered, other than the No Build Alternative. The scope of these proposed improvements is outlined below and depicted in **amended Figure 1**. The numbers below correspond to the number on the figure, illustrating the location of the improvement. Stormwater management facilities, which would result in the need for additional right-of-way and environmental impacts have also been incorporated into the design, as shown on **amended Figure 1**.

2.3.1 Mountain Road

As a result of the Hunsrick Road Bridge removal, a new roadway would be constructed: the Mountain Road Extension. This new roadway would connect existing Mountain Road (T-824) with Fike Hollow Road (T-363) and would parallel the new U.S. 219 alternative along the eastern side. This new connector roadway would provide access from Mountain Road to U.S. Business Route 219 (SR 2047) near the Meyersdale Interchange. The proposed typical section for the Mountain Road Extension includes two 9-foot travel lanes and 2-foot outside shoulders. The design speed is anticipated to be 25 miles per hour.

Prior to the opening of the Meyersdale Bypass, Mason-Dixon Highway carried U.S. 219. After the Meyersdale Bypass opened, PennDOT transferred ownership and maintenance of Mason-Dixon Highway to Summit Township. Following completion of a new U.S. 219

alternative proposed under this study, ownership of Mason-Dixon Highway is to be transferred back to PennDOT as part of re-routed traffic patterns in the area.

2.3.2 Clark Road

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

2.3.3 Hunsrick Road Extension

Improvements made to tie a new U.S. 219 alternative into existing U.S. 219 require 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 that the Hunsrick Road Bridge would not be replaced and Hunsrick Road would terminate on the east side of U.S. 219.

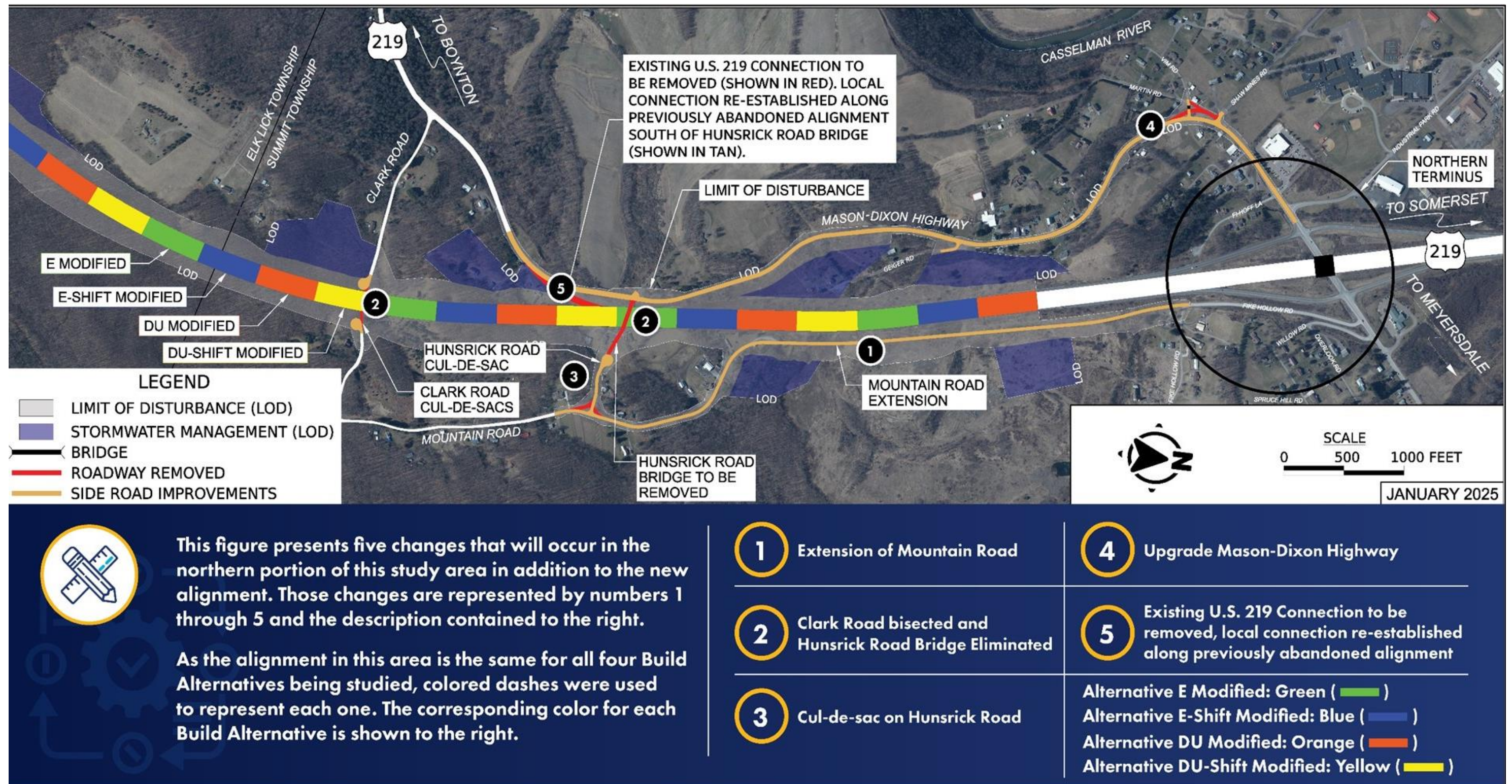
Hunsrick Road currently extends northwest from the intersection with Mountain Road to the Hunsrick Road Bridge. With the removal of the Hunsrick Road Bridge and proposed improvements associated with the Mountain Road Extension, a cul-de-sac would be placed at the northern end of Hunsrick Road. The intersection of Mountain Road with Hunsrick Road would be realigned and maintained. Access to property along Chipmonk Lane would be maintained from Mason-Dixon Highway.

2.3.4 Mason-Dixon Highway

The Mason-Dixon Highway (T-355) would be improved between Hunsrick Road and the U.S. 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 upgrades are roughly 1.3-miles in length, starting near Hunsrick Road and ending at the U.S. 219 Meyersdale Interchange.

2.3.5 Existing U.S. 219 Connection to be Removed

Existing U.S. 219 would be severed, and a local connection would be re-established immediately south of the existing Hunsrick Road bridge along the previously abandoned roadway alignment. This new roadway would become Business U.S. 219.



Amended Figure 1: Additional Improvements in Northern Portion of Study Area

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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	
UPL	Plants that always occur in non-wetland areas
FACU	Plants that usually occur in non-wetland areas
FAC	Plants that can be found in non-wetland areas or wetland areas
FACW	Plants that usually occur in wetland areas
OBL	Plants that always occur in wetland areas
NI/NS	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)
W28*	PFO	W28-1 to W28-26	7,011
W29* **	PFO	W29-1 to W29-31	185
W30*	PFO	W30-1 to W30-49	20,067
W32* **	PEM	W32-1 to W32-9	1,020
W48	PEM	W48-1 to W48-7	1,467
W49	PSS	W49-1 to W49-14	1,647
W50	PFO	W50-1 to W50-9	575
W51	PEM	W51-1 to W51-7	1,049
W53	PEM	W53-1 to W53-6	559
W55	PEM	W55-1 to W55-7	315
W56**	PEM	W56-1 to W56-20	264
W58**	PEM	W58-1 to W58-10	189
W59	PEM	W59-1 to W59-11	3,012
W60	PEM	W60-1 to W60-5	1,292
W61**	PEM	W61-1 to W61-5	886
W62**	PEM	W62-1 to W62-37	27,576
W63	PSS	W63-1 to W63-14	2,313
W64**	PFO	W64-1 to W64-56	34,318
W65	PFO	W65-1 to W65-25	15,822
W66	PEM	W66-1 to W66-29	4,099
W67**	PEM	W67-1 to W67-14	12,970
W68**	PSS	W68-1 to W68-17	10,260
W75**	PEM	W75-1OE to W75-12OE	11,961
W101**	PEM	W101-1 to W101-12	887
W102**	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)
WP011*	PEM	WP011-001 to WP011-028	20,662
WP020*	PEM	WP020-001 to WP020-005	338
WP022* **	PEM	WP022-001 to WP022-009	994
WP024*	PEM	WP024-001 to WP024-011	3,400
WP025*	PEM	WP025-001 to WP025-016	1,586
WP029* **	PFO	WP029-001 to WP029-004	953
WP030*	PFO	WP030-001 to WP030-006	519
WP031*	PEM	WP031-001 to WP031-009	10,498
WP032* **	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)
W27*	PFO	W27-1 to W27-9	32,004
W28*	PFO	W28-1 to W28-26	7,011
W30*	PFO	W30-1 to W30-49	20,067
W34	PFO	W34-1 to W34-21	4,756
W35**	PFO	W35-1 to W35-12	2,062
W36	PEM	W36-1 to W36-15	1,079
W37	PEM	W37-1 to W37-12	2,135
W38	PEM	W38-1 to W38-13	413
W40**	PEM	W40-1 to W40-10	972
W41	PSS	W41-1 to W41-19	8,018

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
W42	PFO	W42-1 to W43-3	2,170
W44	PEM	W44-1 to W44-25	5,336
W45	PEM	W45-1 to W45-13	2,652
W46**	PEM	W46-1 to W46-5	4,464
W47**	PEM	W47-1 to W47-16; W47-A to W47-F	3,169
W69	PEM	W69-1 to W69-7	7,494
W72**	PFO	W72-1OE to W72-7OE	276
W73	PEM	W73-1 to W73-6	327
W74	PEM	W74-1 to W74-23	2,682
W76	POW	W76-1 to W76-4	528
W96	PEM	W96-1 to W96-4	260
W97	PEM	W97-1 to W97-9	1,338
W98	PFO	W98-1 to W98-21	10,739
W99	PFO	W99-1 to W99-18	14,626
W100**	PEM	W100-1OE to W100-5OE	437
W103	PEM	W103-1 to W103-19	1,487
W103A	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)
WP011*	PEM	WP011-001 to WP011-028	20,662
WP020*	PEM	WP020-001 to WP020-005	338
WP022* **	PEM	WP022-001 to WP022-009	994
WP024*	PEM	WP024-001 to WP024-011	3,400
WP025*	PEM	WP025-001 to WP025-016	1,586

Wetland Name	Wetland Type	Flag Numbers	Size within the Corridor (SF)
WP029* **	PFO	WP029-001 to WP029-004	953
WP030*	PFO	WP030-001 to WP030-006	519
WP031* **	PEM	WP031-001 to WP031-009	10,498
WP032* **	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)
WP004* **	PEM	WP004-001 to WP004-026	37,368
WP026*	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)
WP004* **	PEM	WP004-001 to WP004-026	37,368
WP026*	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
S1**	Perennial	S1-1 to S1-28	829	Casselman River
S1A	Intermittent	S1A-1 to S1A-46	1,239	Miller Run
S2**	Perennial	S2-1 to S2-64; S2-101 to S2-123	2,183	Casselman River
S2A**	Perennial	S2A-1 to S2A-25	145	Casselman River
S2B	Ephemeral	S2B-1 to S2B-5	34	Casselman River
S2C**	Perennial	S2C-1 to S2C-83	801	Casselman River
S2D**	Perennial	S2D-1 to S2D-84	797	Casselman River
S2E	Perennial	S2E-1 to S2E-8	61	Casselman River
S3	Perennial	S3-1 to S3-59	947	Casselman River
S4**	Perennial	S4-1 to S4-50	349	Casselman River
S4A**	Ephemeral	S4A-1 to S4A-59	604	Casselman River
S4B	Ephemeral	S4B-1 to S4B-17	184	Casselman River
S5	Perennial	S5-1 to S5-4	73	Casselman River
S6	Intermittent	S6-1 to S6-8	57	Casselman River

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

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
S65	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
S18* **	Perennial	S18-1 to S18-55	306	Piney Creek
S19* **	Perennial	S19-1 to S19-83	633	Piney Creek
S20* **	Ephemeral	S20-1 to S20-24	65	Piney Creek
S21*	Perennial	S21-1 to S21-37	441	Piney Creek
S23* **	Ephemeral	S23-1 to S23-89	1,100	Piney Creek
S26* **	Perennial	S26-1 to S26-82, S26-100 to S26-149	592	Piney Creek
S32* **	Perennial	S32-1 to S32-113, S32-201 to S32-274, S32-400 to S32-410 evens	2,860	Casselman River
S39* **	Perennial	S39-1 to S39-129, S39-201 to S39-280, S39-300 to S39-326	2,700	Casselman River
S39C	Perennial	S39C-1 to S39C-10	35	Meadow Run
S39D	Intermittent	S39D-1 to S39D-10	109	Meadow Run
S41	Perennial	S41-1 to S41-14	58	Piney Creek
S42	Perennial	S42-1 to S42-11	123	Piney Creek
S43	Perennial	S43-1 to S43-29, S43-50 to S43-57, S43-100 to S43-108	247	Piney Creek
S43A	Intermittent	S43A-1 to S43A-4	17	Piney Creek
S44	Perennial	S44-1 to S44-20	122	Piney Creek
S45	Perennial	S45-1 to S45-22	112	Piney Creek
S45A	Perennial	S45A-1 to S45A-5	19	Piney Creek

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
S46**	Intermittent	S46-25 to S46-51	394	Piney Creek
S46A**	Intermittent	S46A-1 to S46A-24	368	Piney Creek
S46B**	Ephemeral	S46B-1 to S46B-8	45	Piney Creek
S47**	Ephemeral	S47-1 to S47-24	86	Piney Creek
S48**	Perennial	S48-1 to S48-44	390	Meadow Run
S50**	Perennial	S50-9 to S50-30	165	Meadow Run
S50A	Intermittent	S50A-1 to S50A-4	18	Meadow Run
S51	Intermittent	S51-1 to S51-53	631	Meadow Run
S51A	Ephemeral	S51A-1 to S51A-4	35	Meadow Run
S52	Intermittent	S52-1 to S52-15	136	Meadow Run
S53**	Intermittent	S53-1 to S53-62; S53-101 to S53-137	732	Meadow Run
S53A**	Perennial	S53A-1 to S53A-20	201	Meadow Run
S54	Intermittent	S54-1 to S54-16	126	Meadow Run
S55	Ephemeral	S55-1 to S55-4	45	Meadow Run
S56	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
WL010* **	Intermittent	WL010-001 to WL010-007	160	Casselman River
WL012*	Intermittent	WL012-001 to WL012-040	1,541	Meadow Run
WL013*	Intermittent	WL013-001 to WL013-030	1,228	Meadow Run
WL014* **	Perennial	WL014-001 to WL014-035	2,203	Meadow Run

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
WL016* **	Perennial	WL016-001 to WL016-020	39	Meadow Run
WL021*	Intermittent	WL021-001 to WL021-003	33	Meadow Run
WL027*	Ephemeral	WL027-001 to WL027-0114	574	Meadow Run
WL028*	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
S18* **	Perennial	S18-1 to S18-55	306	Piney Creek
S19* **	Perennial	S19-1 to S19-83	633	Piney Creek
S20* **	Ephemeral	S20-1 to S20-24	65	Piney Creek
S21* **	Perennial	S21-1 to S21-37	441	Piney Creek
S23* **	Ephemeral	S23-1 to S23-89	1,100	Piney Creek
S24	Intermittent	S24-1 to S24-12	50	Piney Creek
S25	Perennial	S25-1 to S25-26	140	Piney Creek
S25A	Intermittent	S25A-1 to S25-7	51	Piney Creek
S26* **	Perennial	S26-1 to S26-82, S26-100 to S26-149	592	Piney Creek
S27	Perennial	S27-1 to S27-27	36	Piney Creek
S28	Perennial	S28-1 to S28-12	146	Piney Creek
S28A	Intermittent	S28A-1 to S28A-17	14	Piney Creek
S29**	Perennial	S29-1 to S29-28	83	Piney Creek
S29A**	Perennial	S29A-1 to S29A-4	19	Piney Creek
S30**	Perennial	S30-1 to S30-15	90	Piney Creek
S31**	Perennial	S31-1 to S31-99	752	Piney Creek

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
S32* **	Perennial	S32-1 to S32-113, S32-201 to S32-274, S32-400 to S32-410 evens	2,860	Casselman River
S33**	Perennial	S33-1 to S33-73	766	Piney Creek
S34 **	Perennial	S34-1 to S34-47	375	Piney Creek
S36	Ephemeral	S36-1 and S36-2	12	Piney Creek
S38**	Perennial	S38-1 to S38-162, S38-200 to S38-219	1,021	Meadow Run
S38A	Ephemeral	S38A-1 to S38A-8	65	Meadow Run
S38B	Perennial	S38B-1 to S38B-2	8	Meadow Run
S38C	Intermittent	S38C-1 to S38C-12	69	Meadow Run
S39* **	Perennial	S39-1 to S39-129, S39-201 to S39-280, S39-300 to S39-326	2,700	Casselman River
S39A**	Ephemeral	S39A-1 to S39A-45	320	Meadow Run
S59	Intermittent	S59-1 to S59-26	243	Meadow Run
S66	Intermittent	S66-1 to S66-19	182	Piney Creek
S67	Intermittent	S67-1 to S67-8	64	Meadow Run
S68	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
WL010* **	Intermittent	WL010-001 to WL010-007	160	Casselman River
WL012*	Intermittent	WL012-001 to WL012-040	1,541	Meadow Run
WL013*	Intermittent	WL013-001 to WL013-030	1,228	Meadow Run
WL014* **	Perennial	WL014-001 to WL014-035	2,203	Meadow Run

Stream Name	Stream Type	Flag Numbers	Length within the Corridor (LF)	Receiving Water Body
WL016*	Perennial	WL016-001 to WL016-020	39	Meadow Run
WL021*	Intermittent	WL021-001 to WL021-003	33	Meadow Run
WL027*	Intermittent	WL027-001 to WL027-0114	574	Meadow Run
WL028*	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
WL005*	Intermittent	WL005-001 to WL005-005	101	Meadow Run
WL006* **	Perennial	WL006-001 to WL006-014	563	Meadow Run
WL007*	Intermittent	WL007-001 to WL007-011	300	Meadow Run
WL008*	Intermittent	WL008-001 to WL008-004	50	Meadow Run
WL009*	Ephemeral	WL009-001 to WL009-004	86	Casselman River
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

Segment 3 DU-E Shift

Maryland

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

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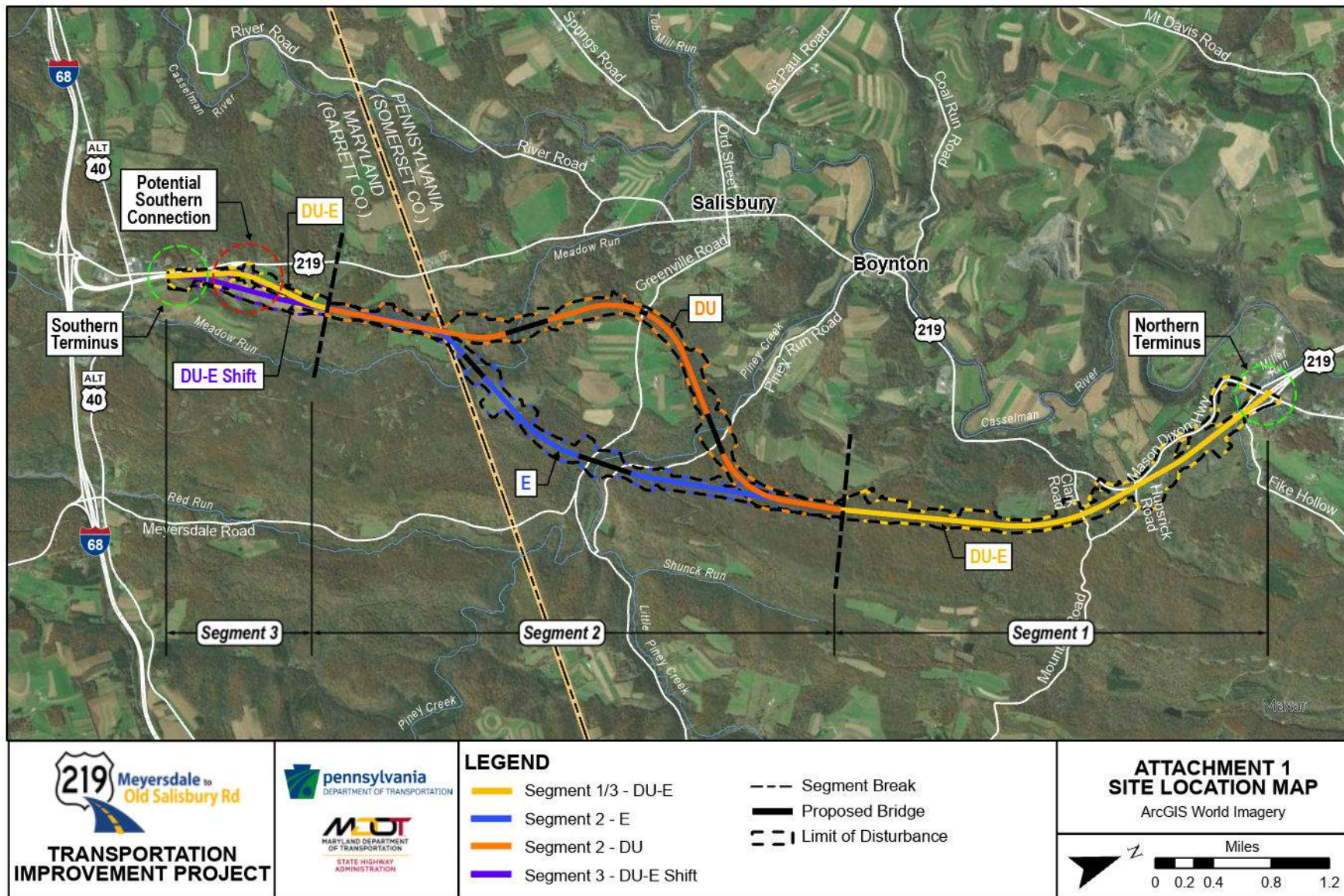
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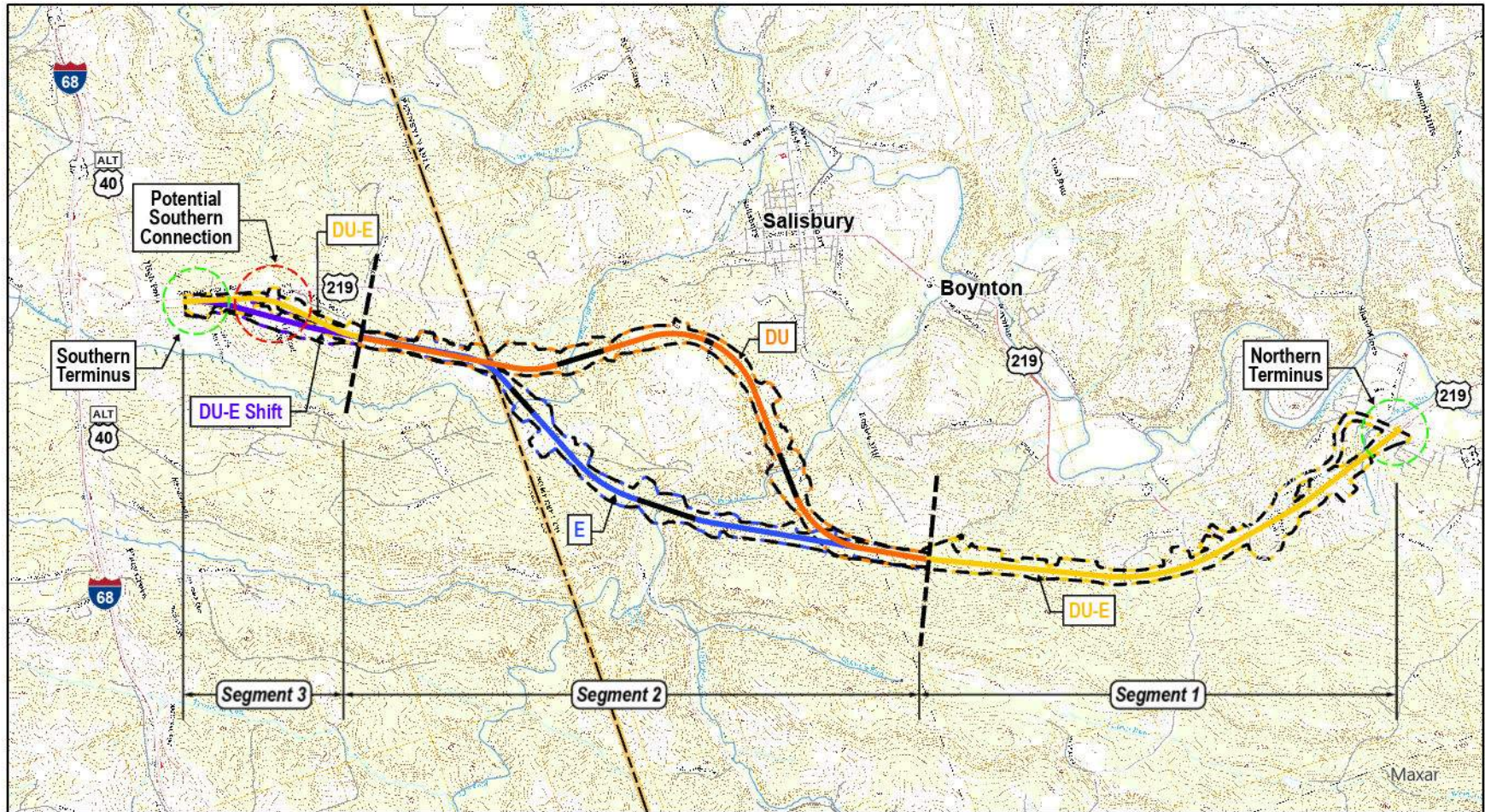
ATTACHMENT 1

Site Location Map



ATTACHMENT 2

USGS 7.5' Topographic Map



**TRANSPORTATION
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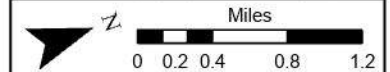
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- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- Segment Break
- Proposed Bridge
- Limit of Disturbance

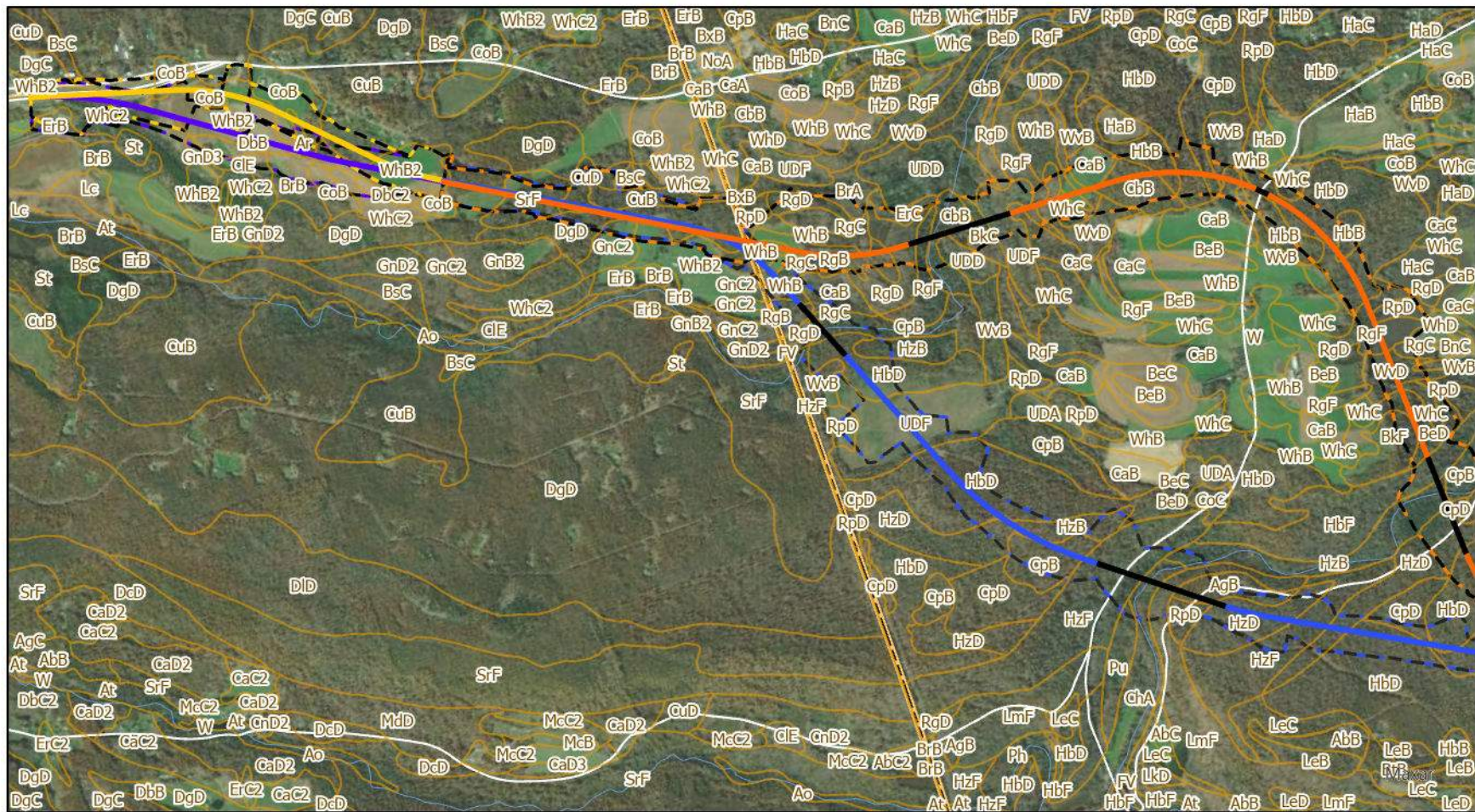
ATTACHMENT 2 USGS MAP

Avilton & Meyersdale Quadrangles
USGS 7.5' Topographic Quadrangles, 2019



ATTACHMENT 3

Soils Map



**TRANSPORTATION
IMPROVEMENT PROJECT**



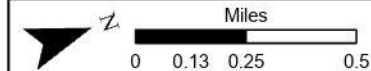
LEGEND

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- SSURGO Soil Boundary
- Proposed Bridge
- Limit of Disturbance

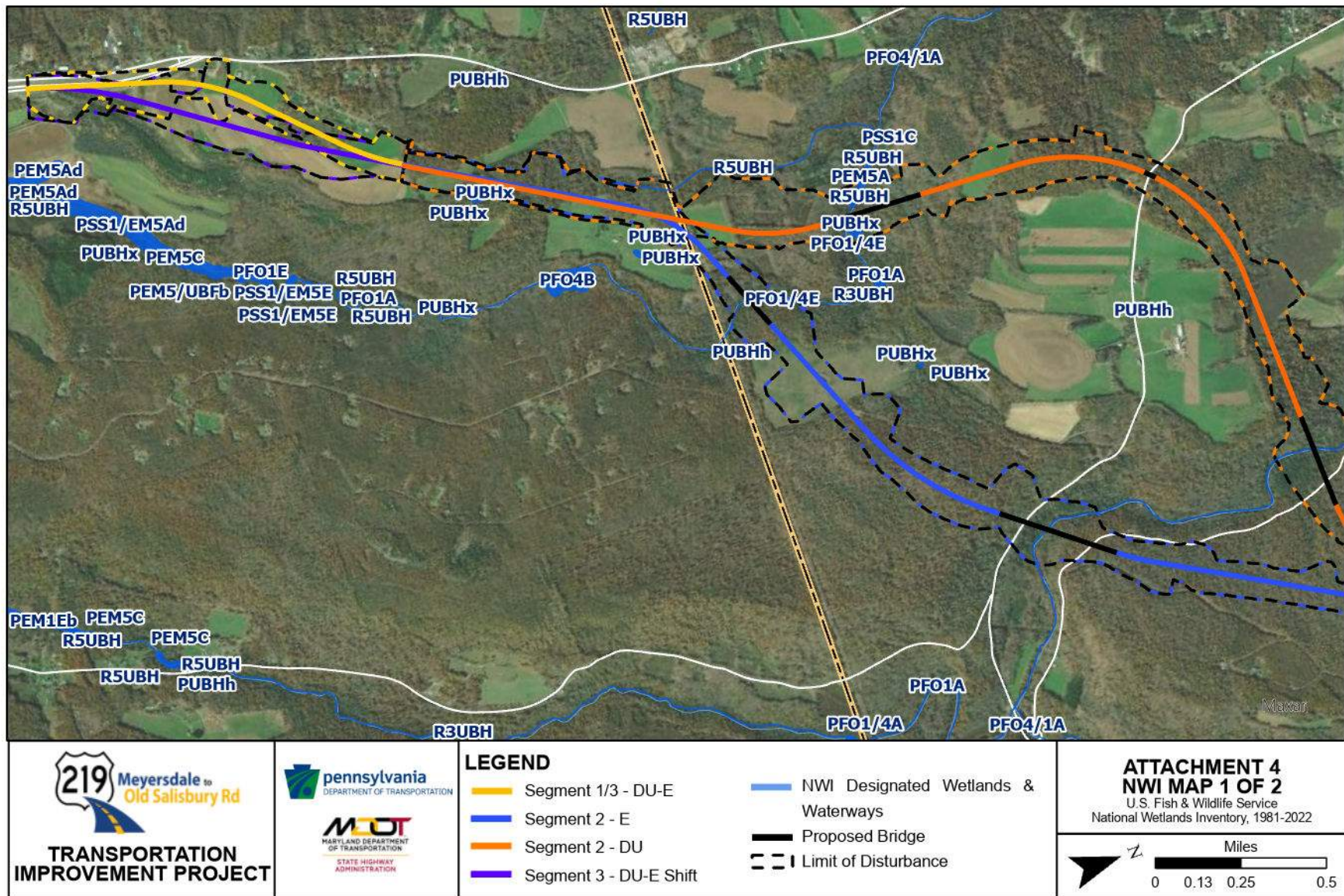
ATTACHMENT 3 SOILS MAP 1 OF 2

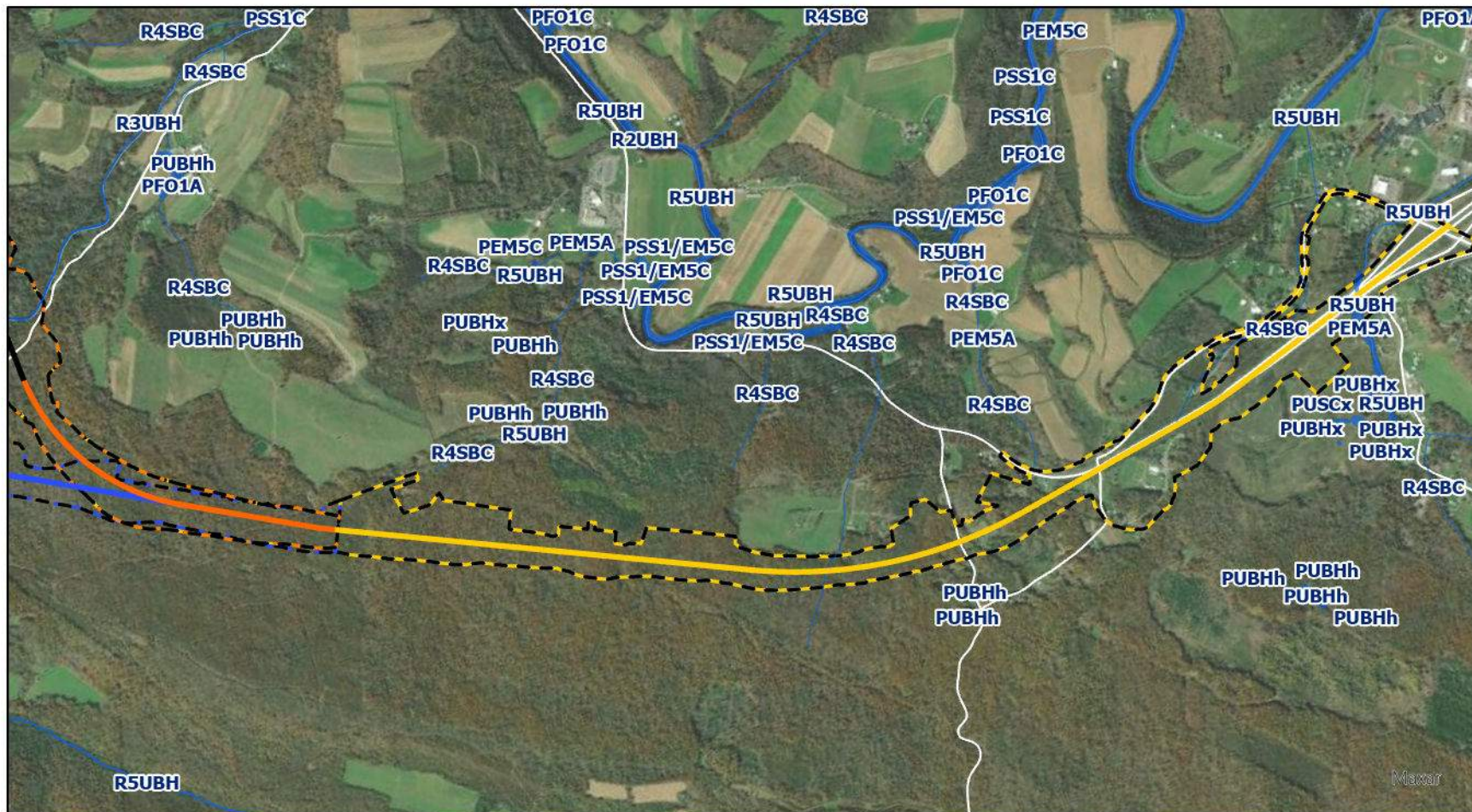
U.S. Department of Agriculture - SSURGO Soils
Natural Resources Conservation Service, 2019



ATTACHMENT 4

National Wetlands Inventory (NWI) Map





**TRANSPORTATION
IMPROVEMENT PROJECT**



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

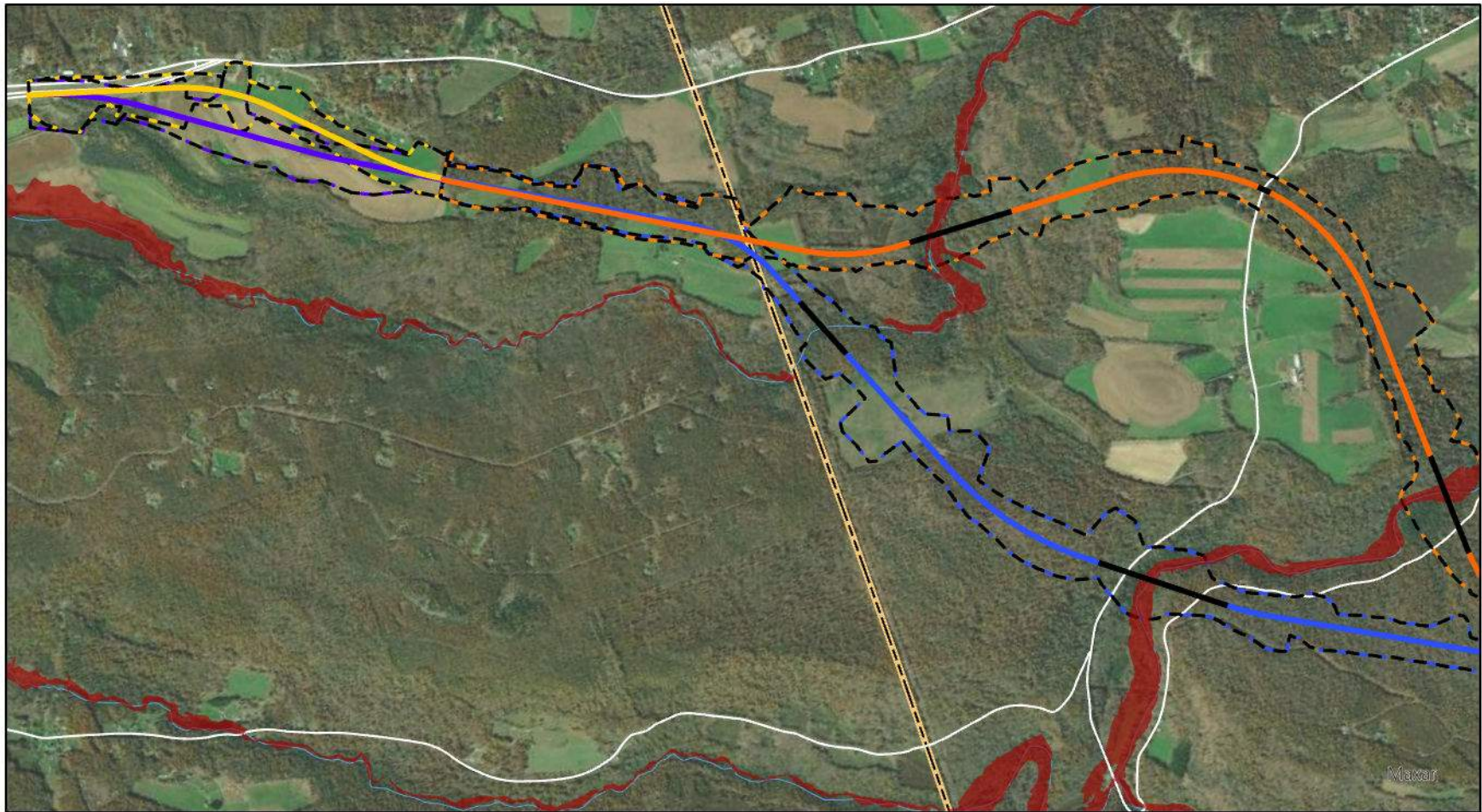
ATTACHMENT 4 NWI MAP 2 OF 2

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



ATTACHMENT 5

FEMA-Designated Floodplains Map



**TRANSPORTATION
IMPROVEMENT PROJECT**



LEGEND

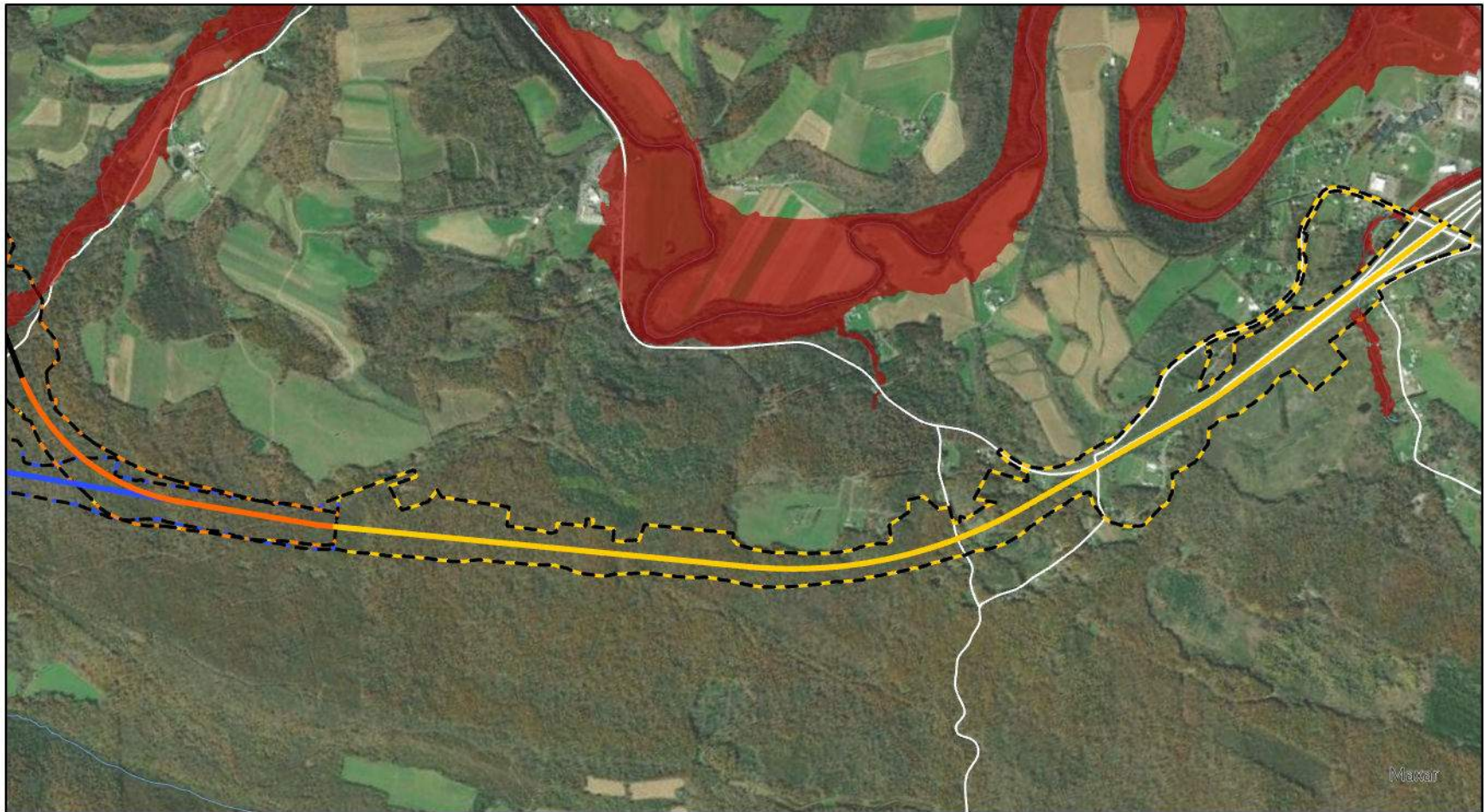
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- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- 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

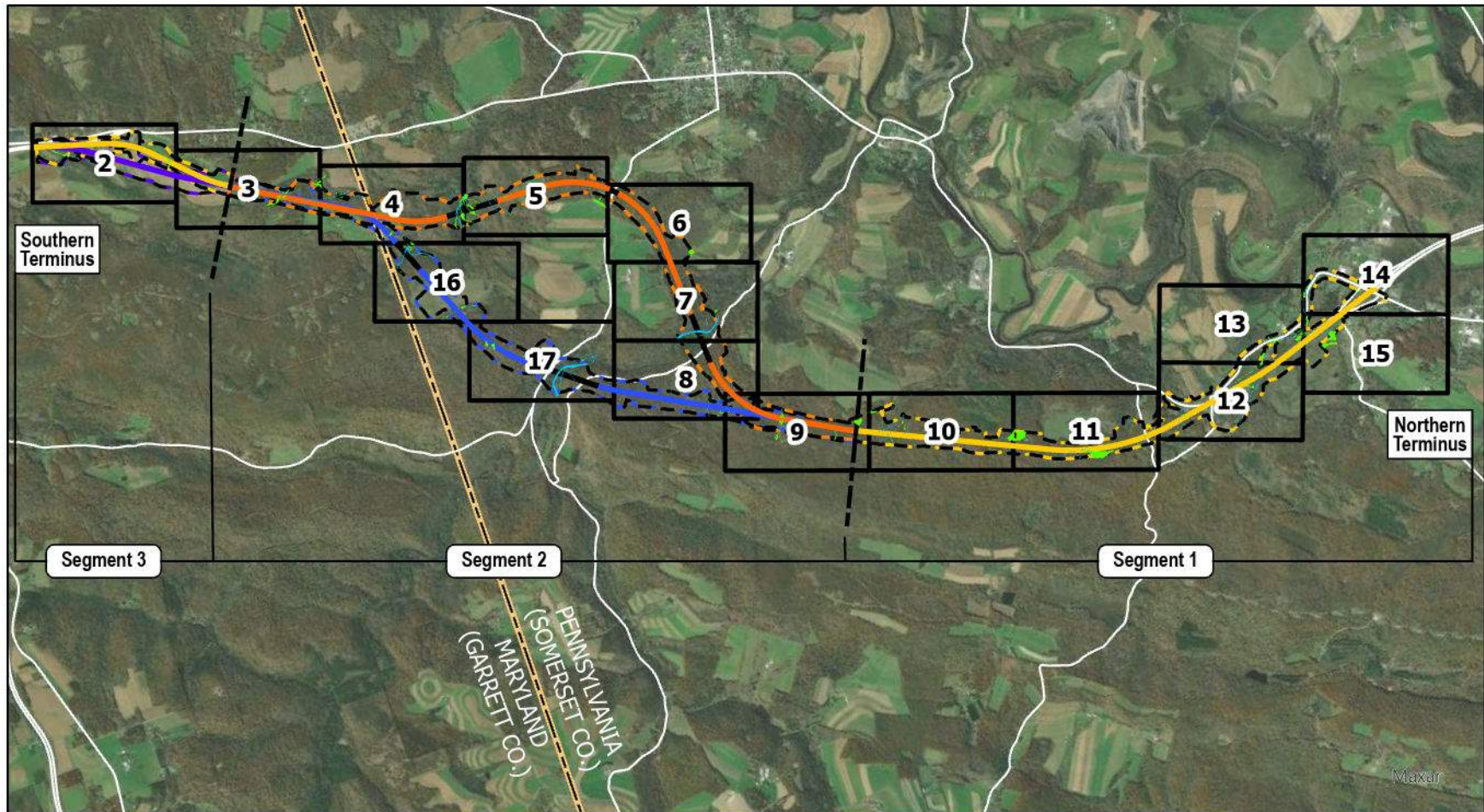
ATTACHMENT 5 Q3 FLOOD MAP 2 OF 2



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

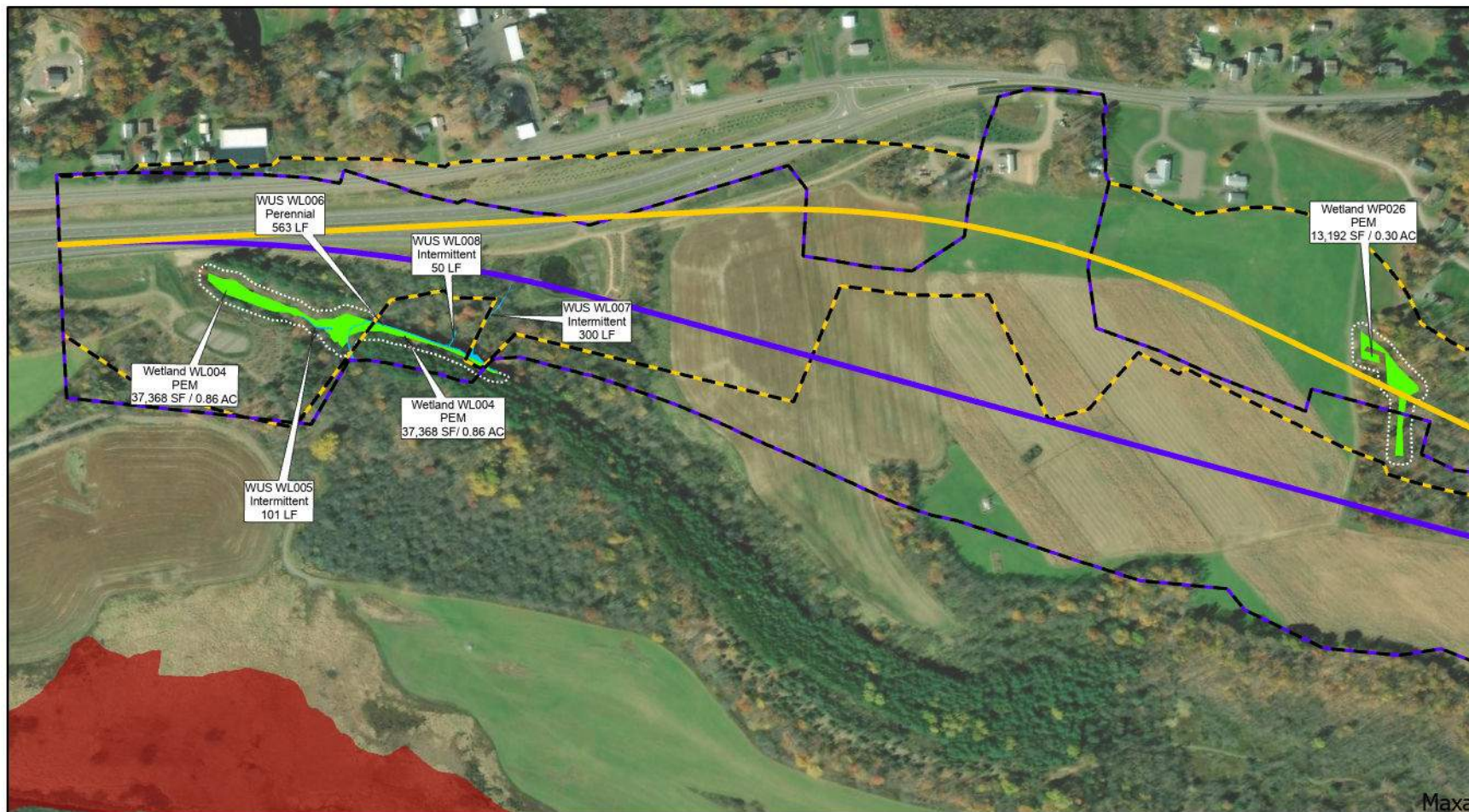


APPENDIX A

Aquatic Resource Delineation Map



 <p>219 Meyersdale to Old Salisbury Rd</p> <p>TRANSPORTATION IMPROVEMENT PROJECT</p>	 <p>MDOT MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION</p>	<p>LEGEND</p> <ul style="list-style-type: none"> 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 	<p>APPENDIX: A AQUATIC RESOURCE DELINEATION MAP SHEET 1 OF 17</p> <p>Miles 0 0.5 1</p>
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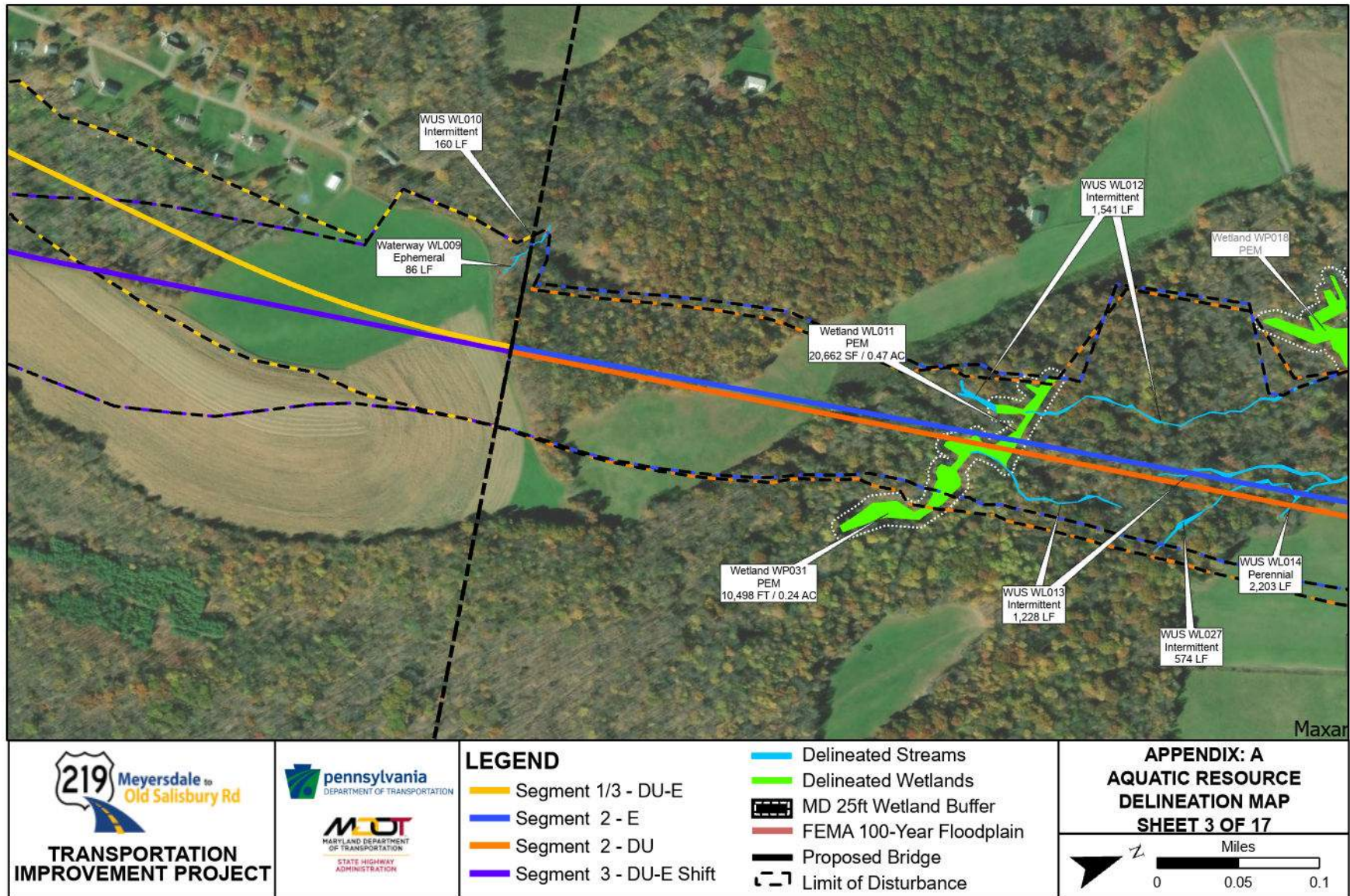
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- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

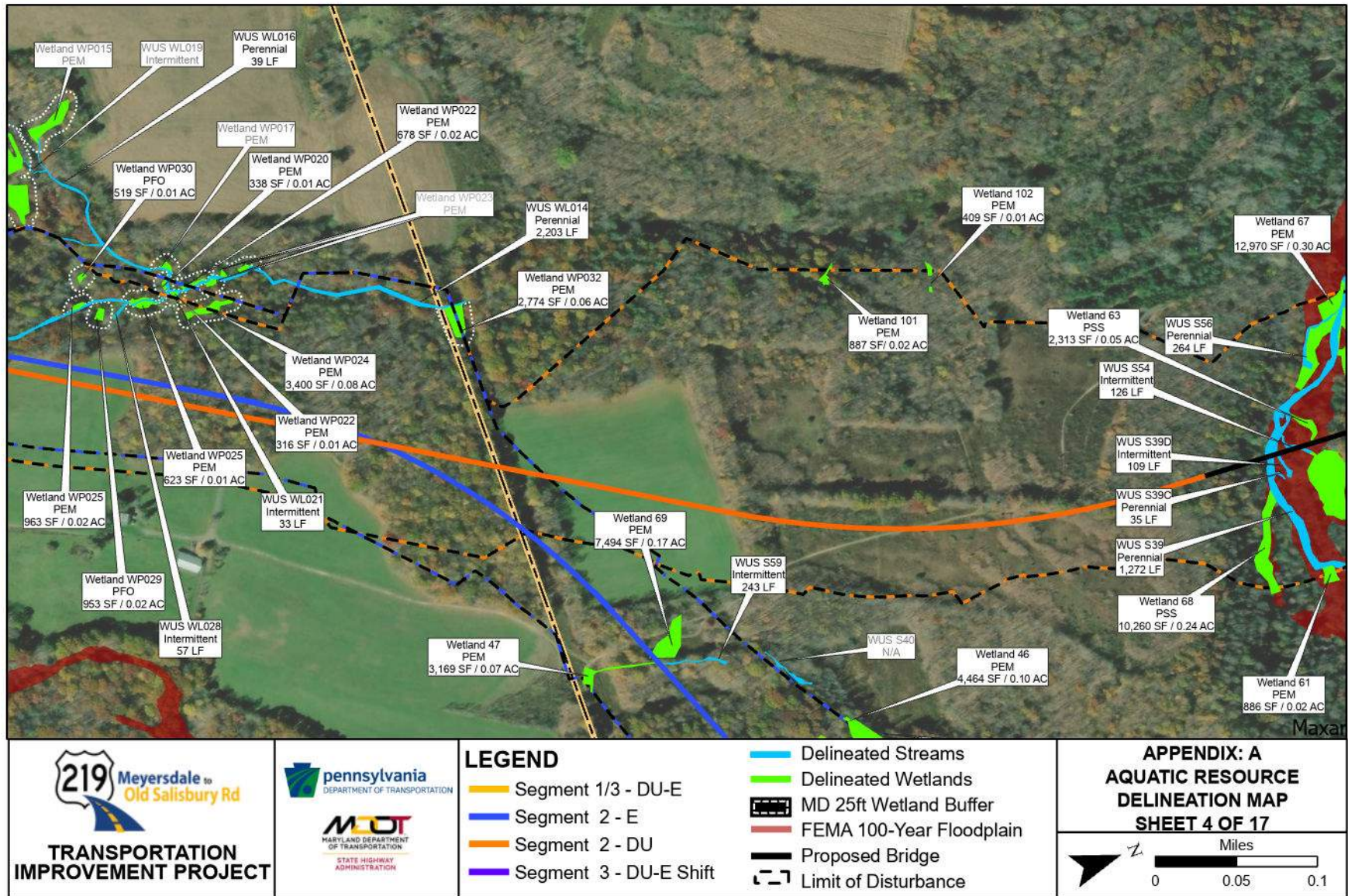
- Delineated Streams
- Delineated Wetlands
- MD 25ft Wetland Buffer
- FEMA 100-Year Floodplain
- Proposed Bridge
- Limit of Disturbance

APPENDIX: A AQUATIC RESOURCE DELINEATION MAP SHEET 2 OF 17

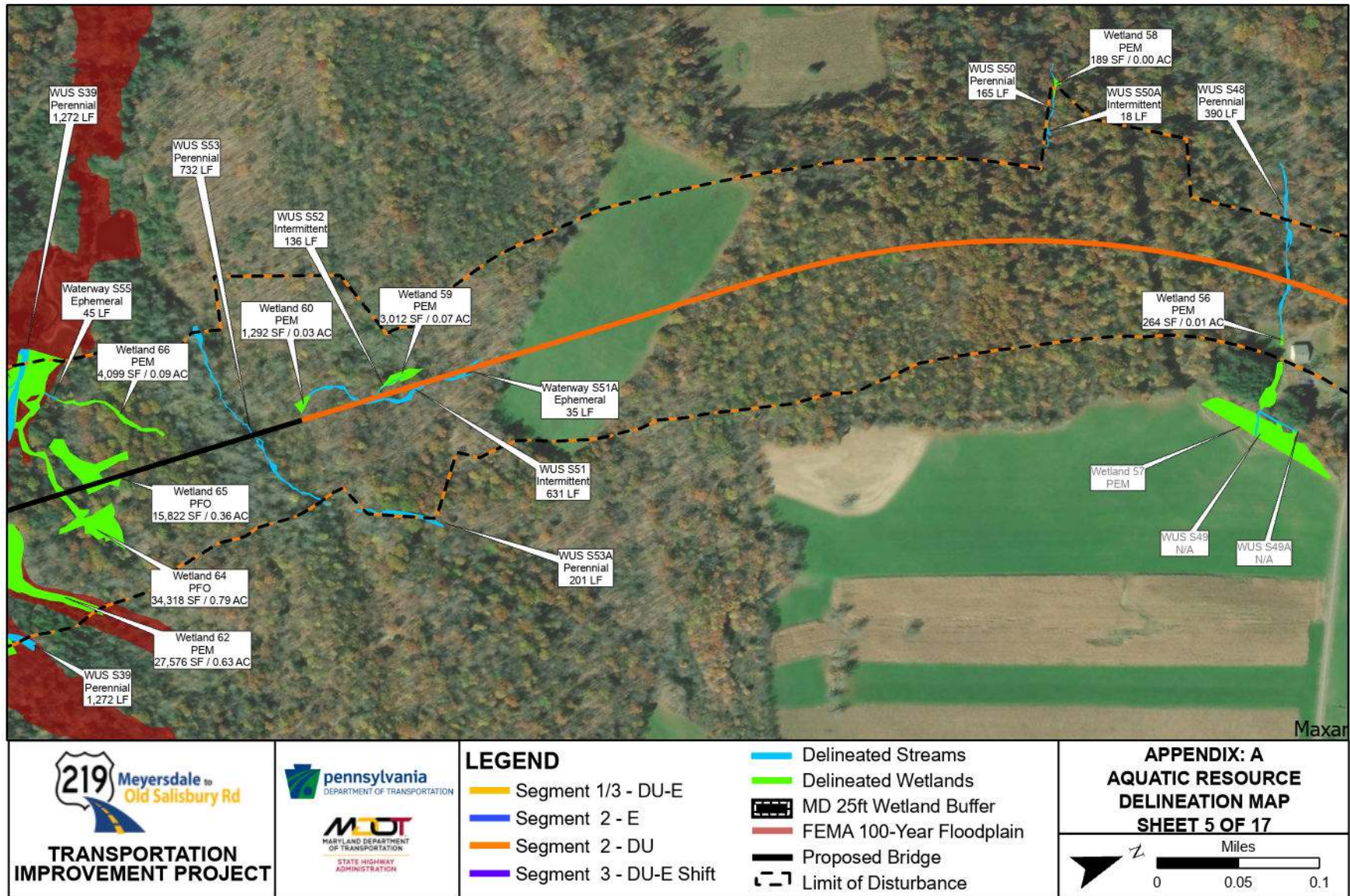




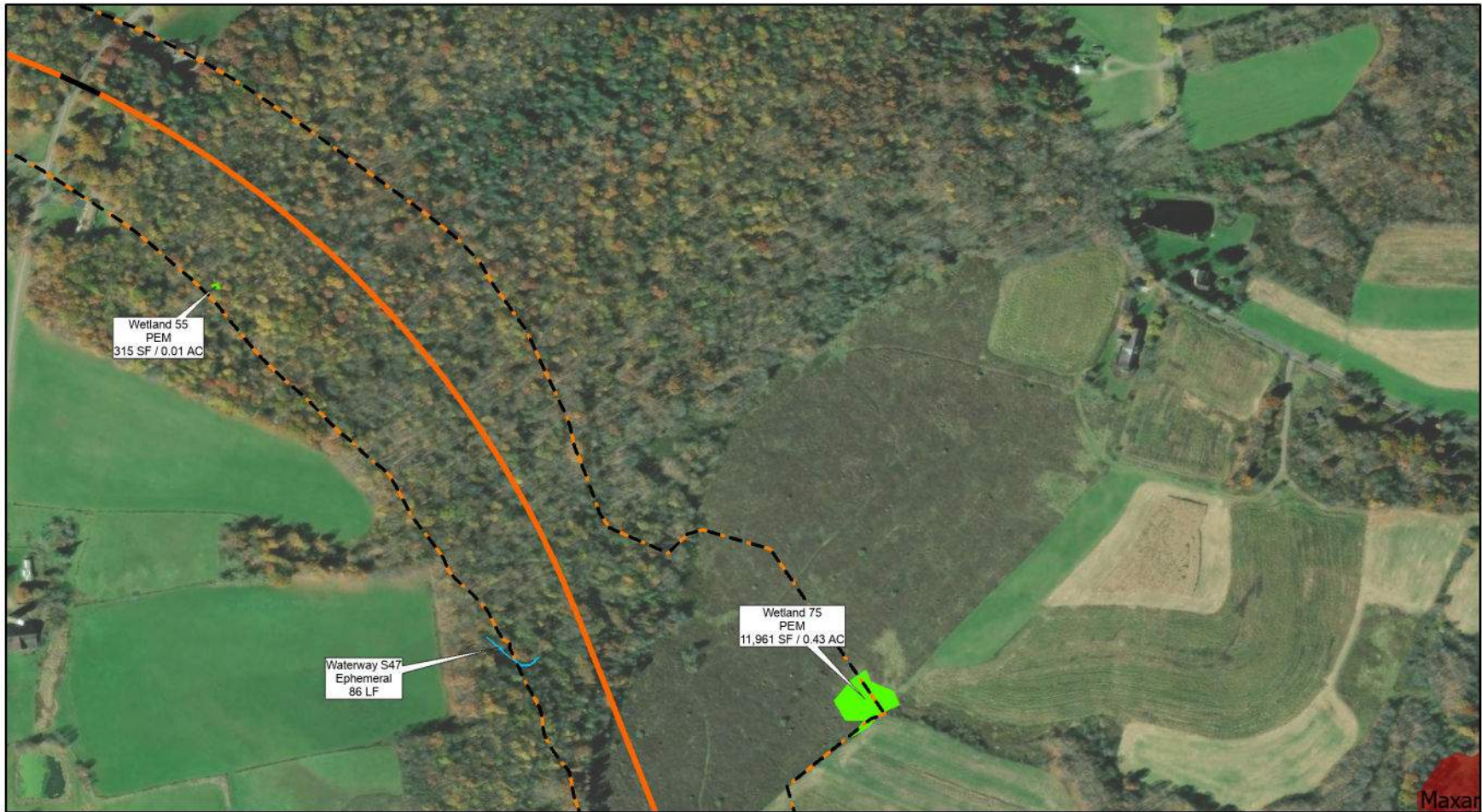
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**TRANSPORTATION
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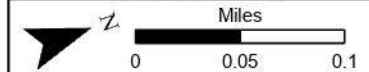


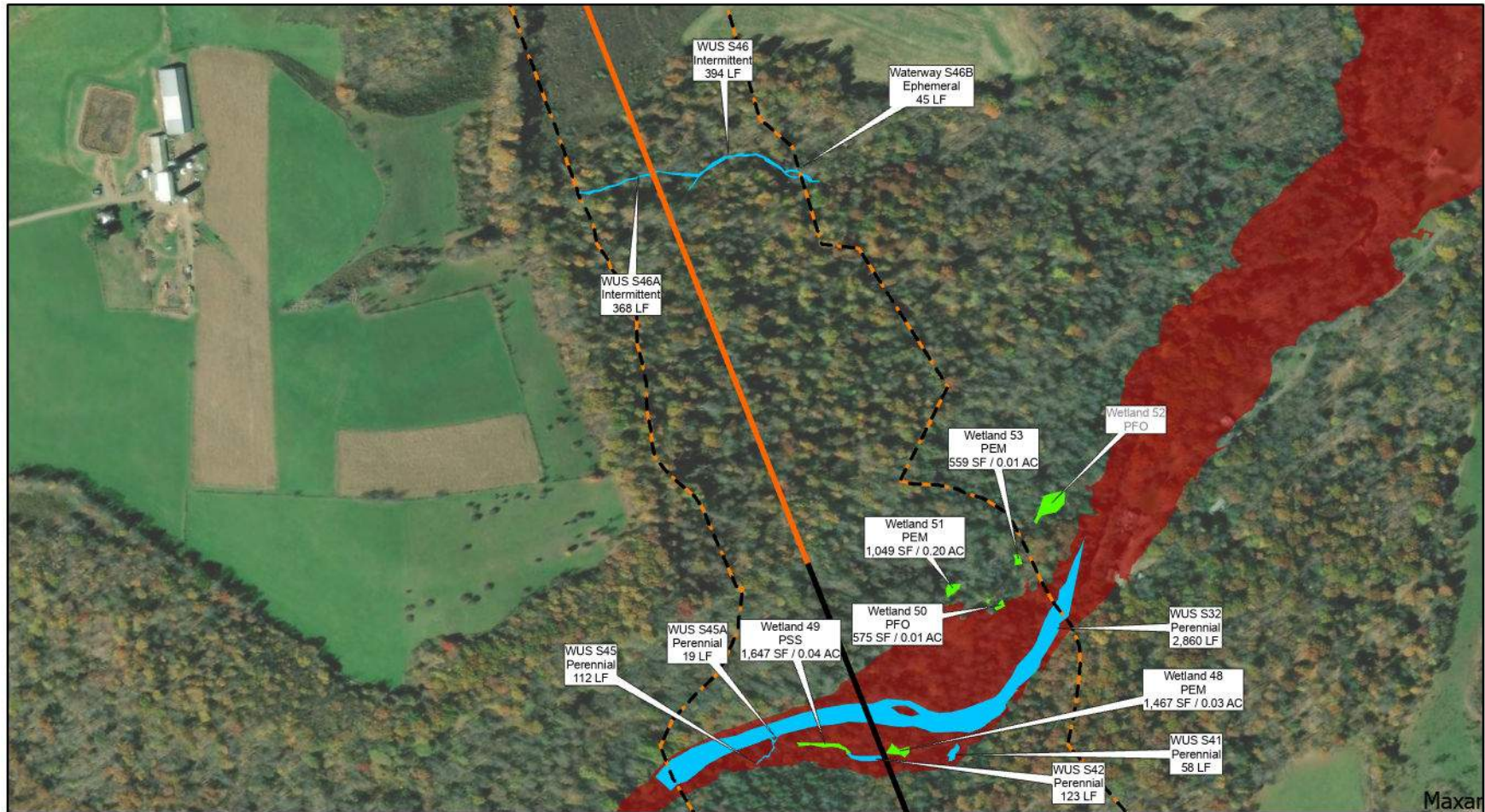
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- Segment 1/3 - DU-E
- Segment 2 - E
- Segment 2 - DU
- Segment 3 - DU-E Shift

- 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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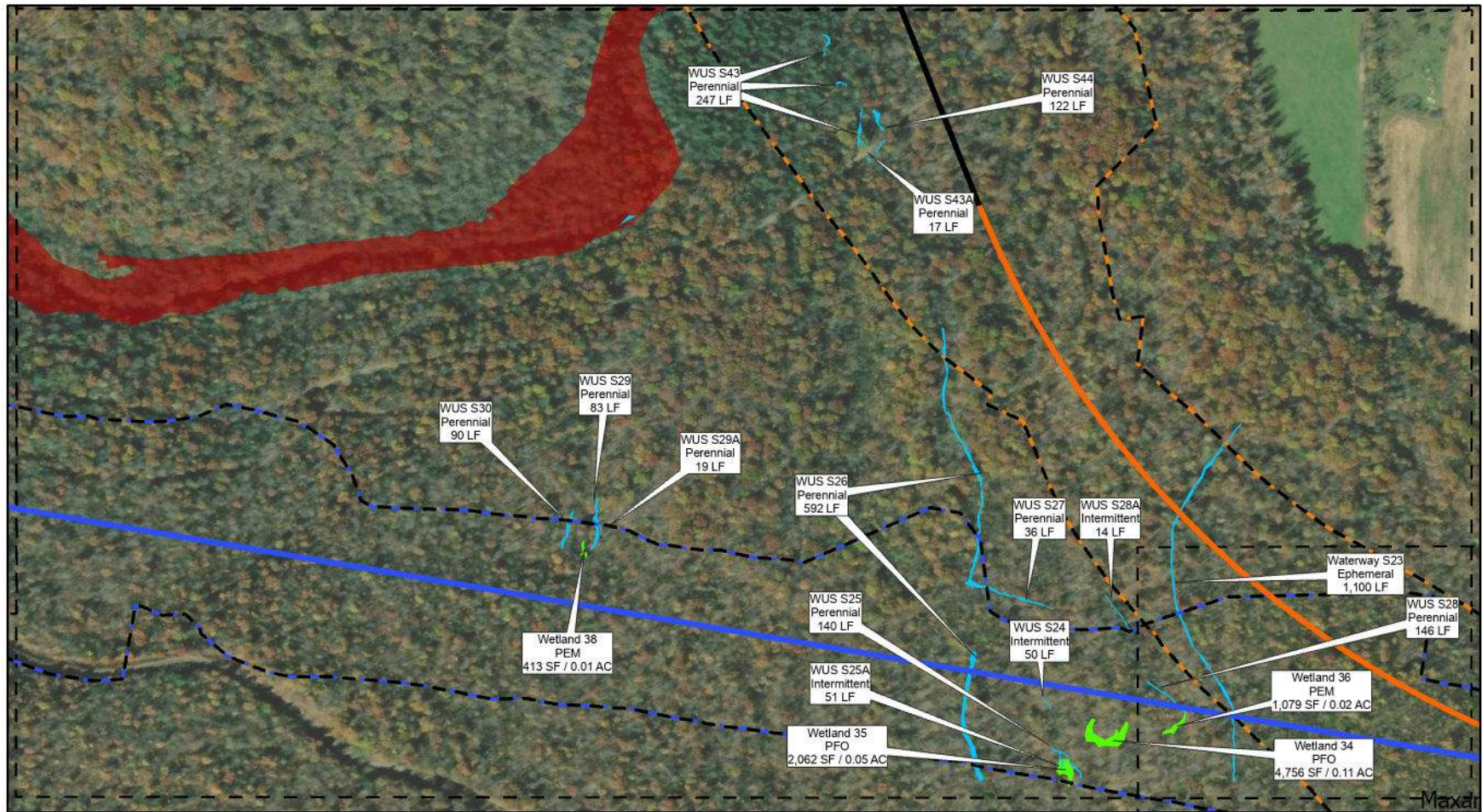
LEGEND

- 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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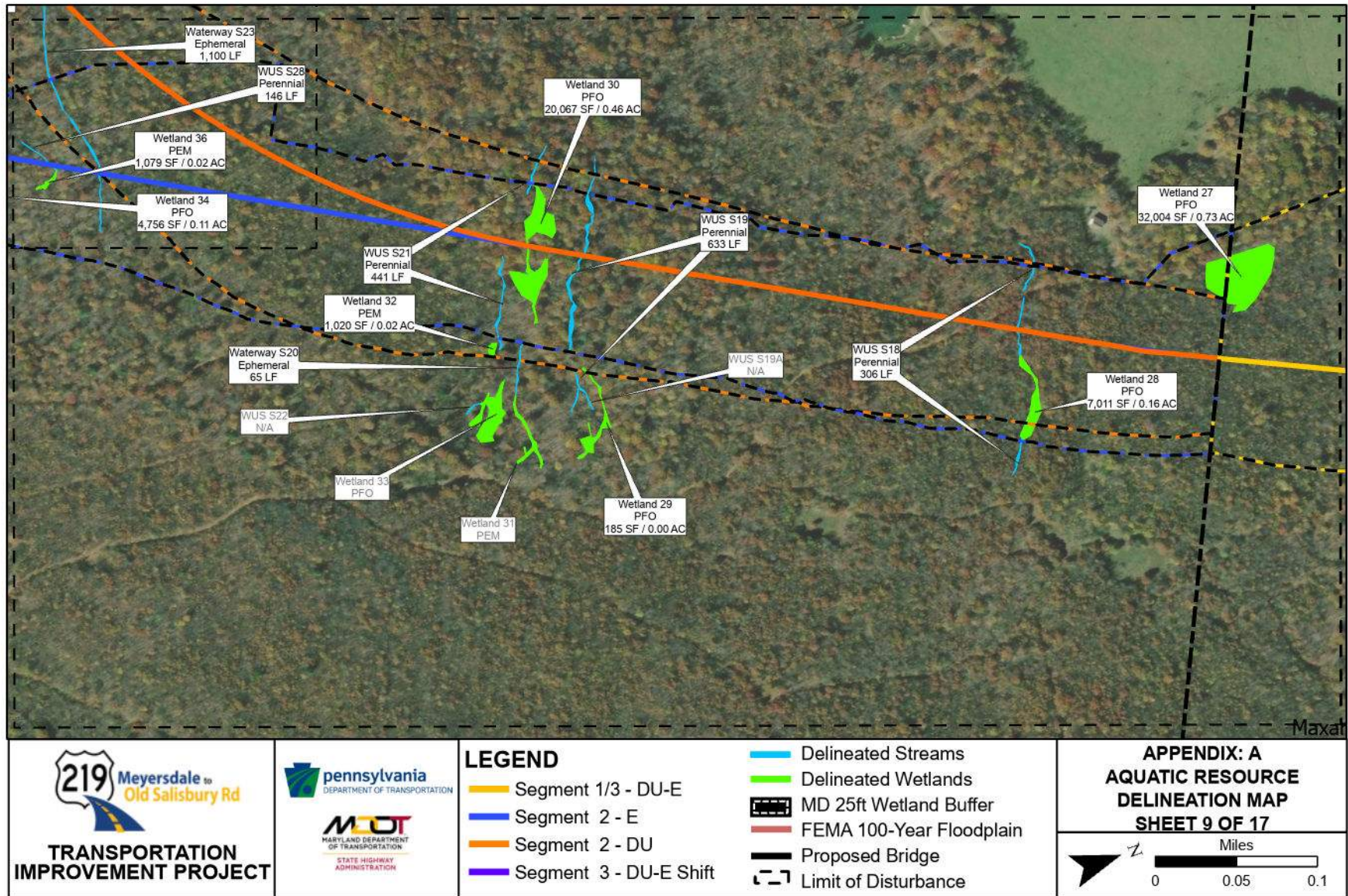
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- Segment 3 - DU-E Shift

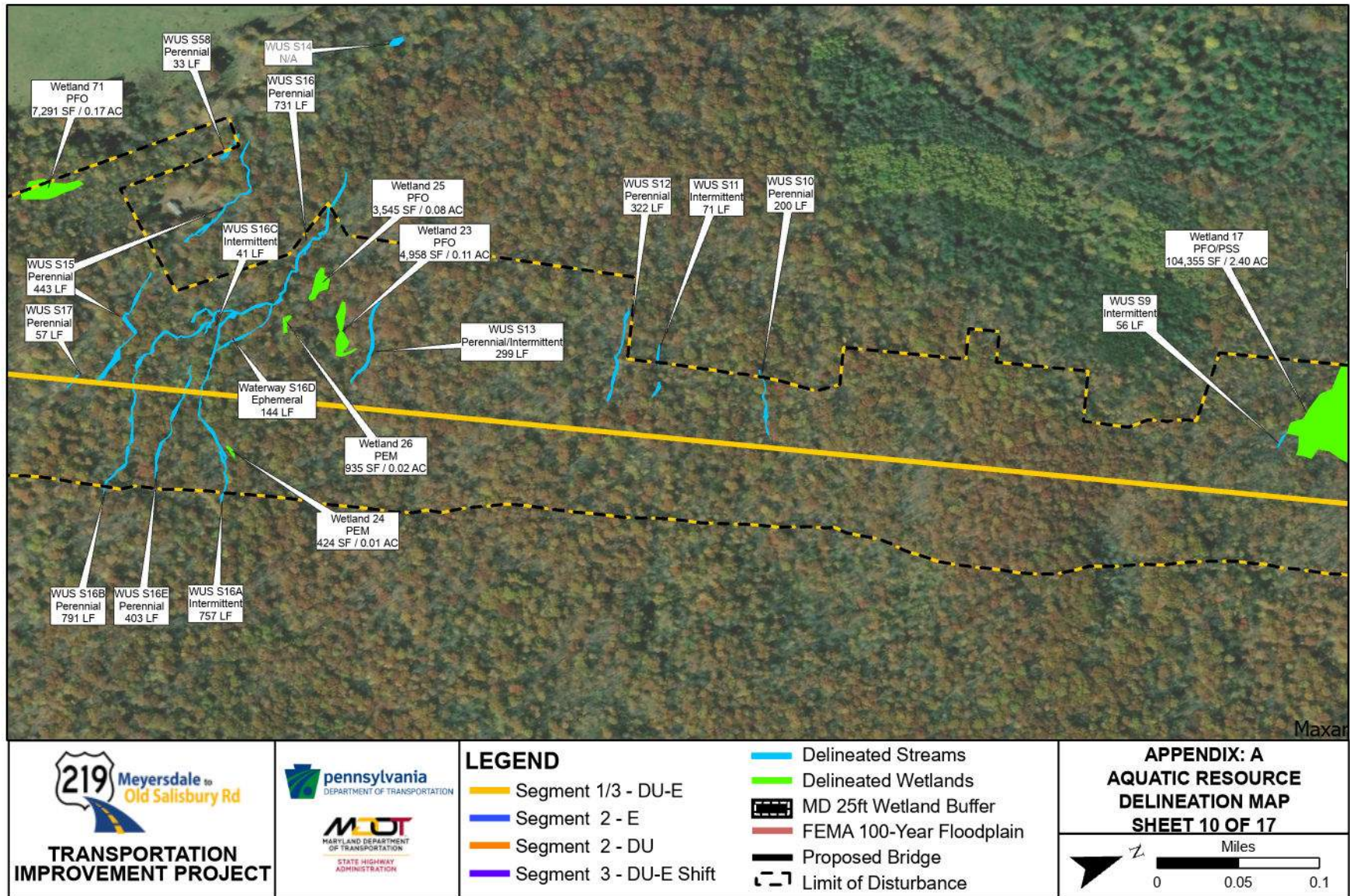
- Delineated Streams
- Delineated Wetlands
- MD 25ft Wetland Buffer
- FEMA 100-Year Floodplain
- Proposed Bridge
- Limit of Disturbance

APPENDIX: A AQUATIC RESOURCE DELINEATION MAP SHEET 8 OF 17

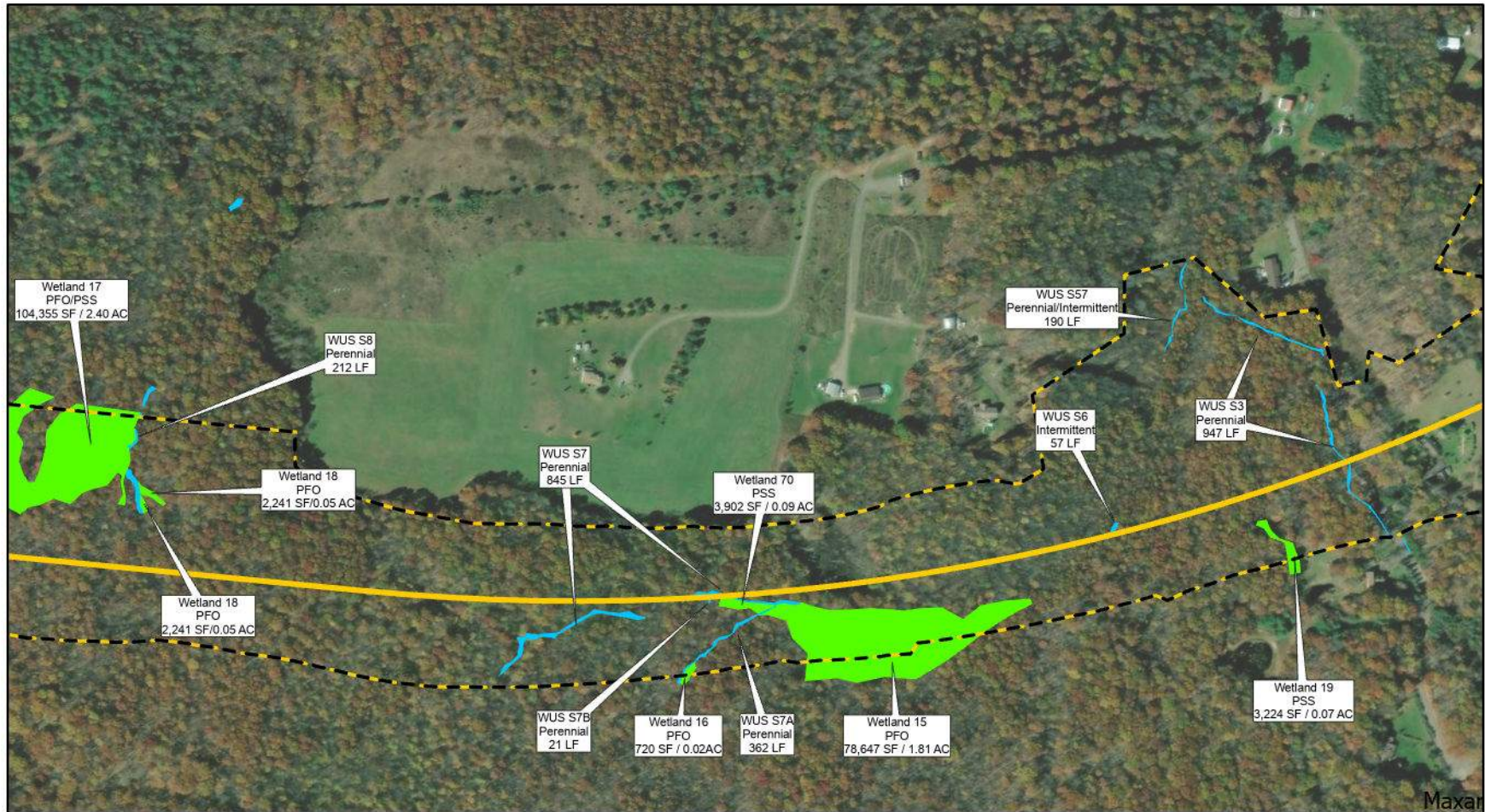




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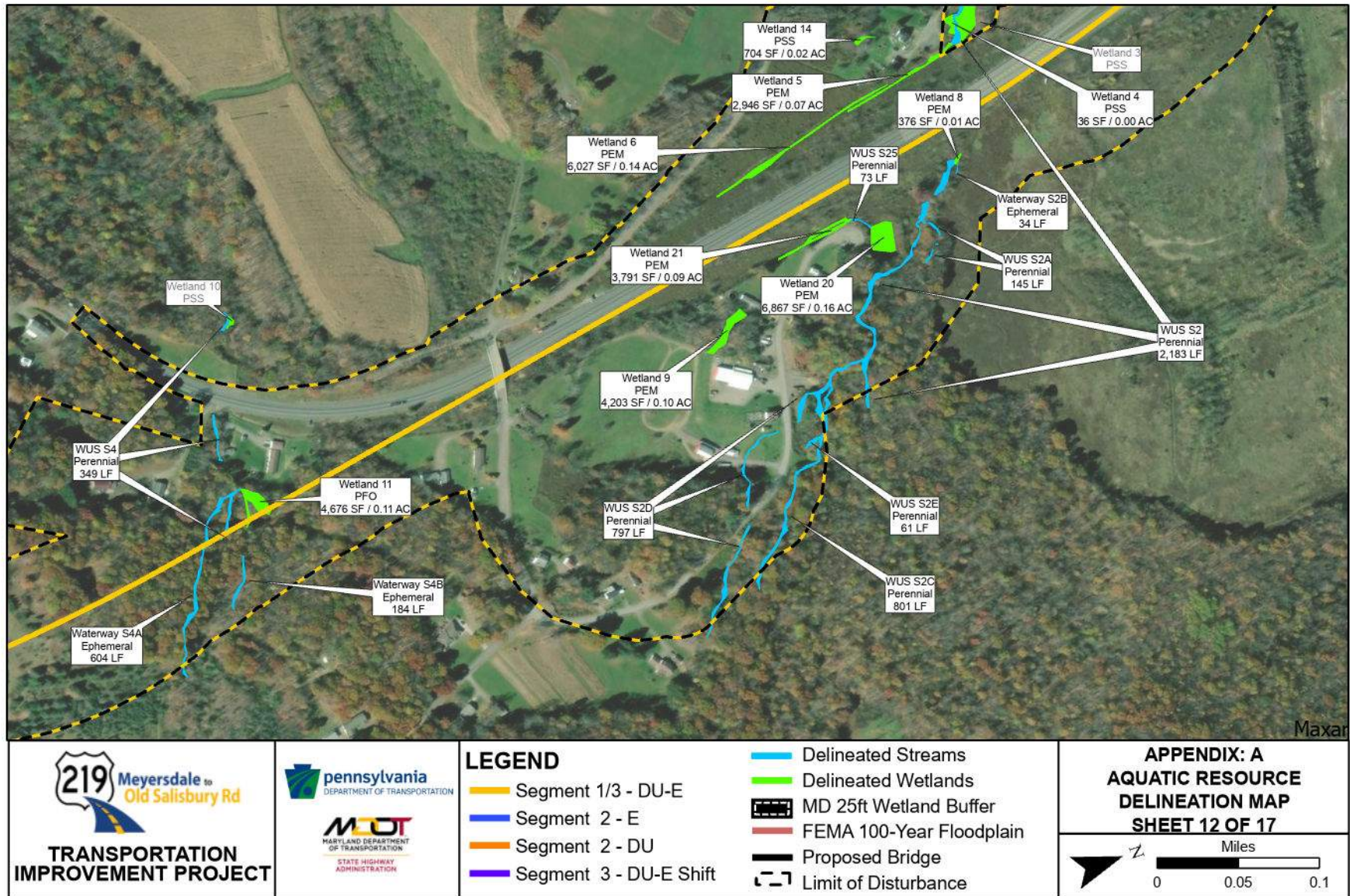
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- Segment 2 - E
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- Segment 3 - DU-E Shift

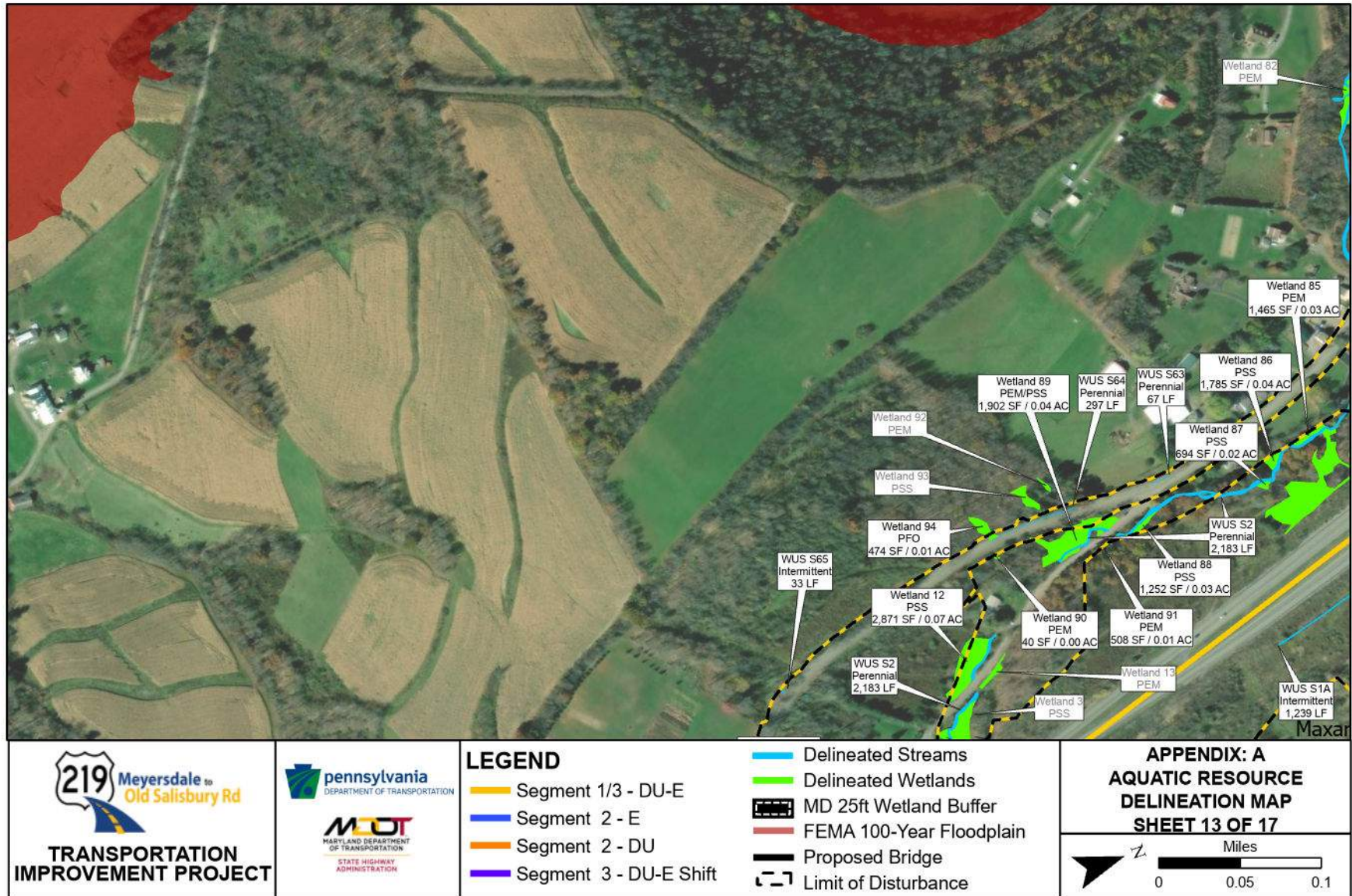
- Delineated Streams
- Delineated Wetlands
- MD 25ft Wetland Buffer
- FEMA 100-Year Floodplain
- Proposed Bridge
- Limit of Disturbance

APPENDIX: A AQUATIC RESOURCE DELINEATION MAP SHEET 11 OF 17

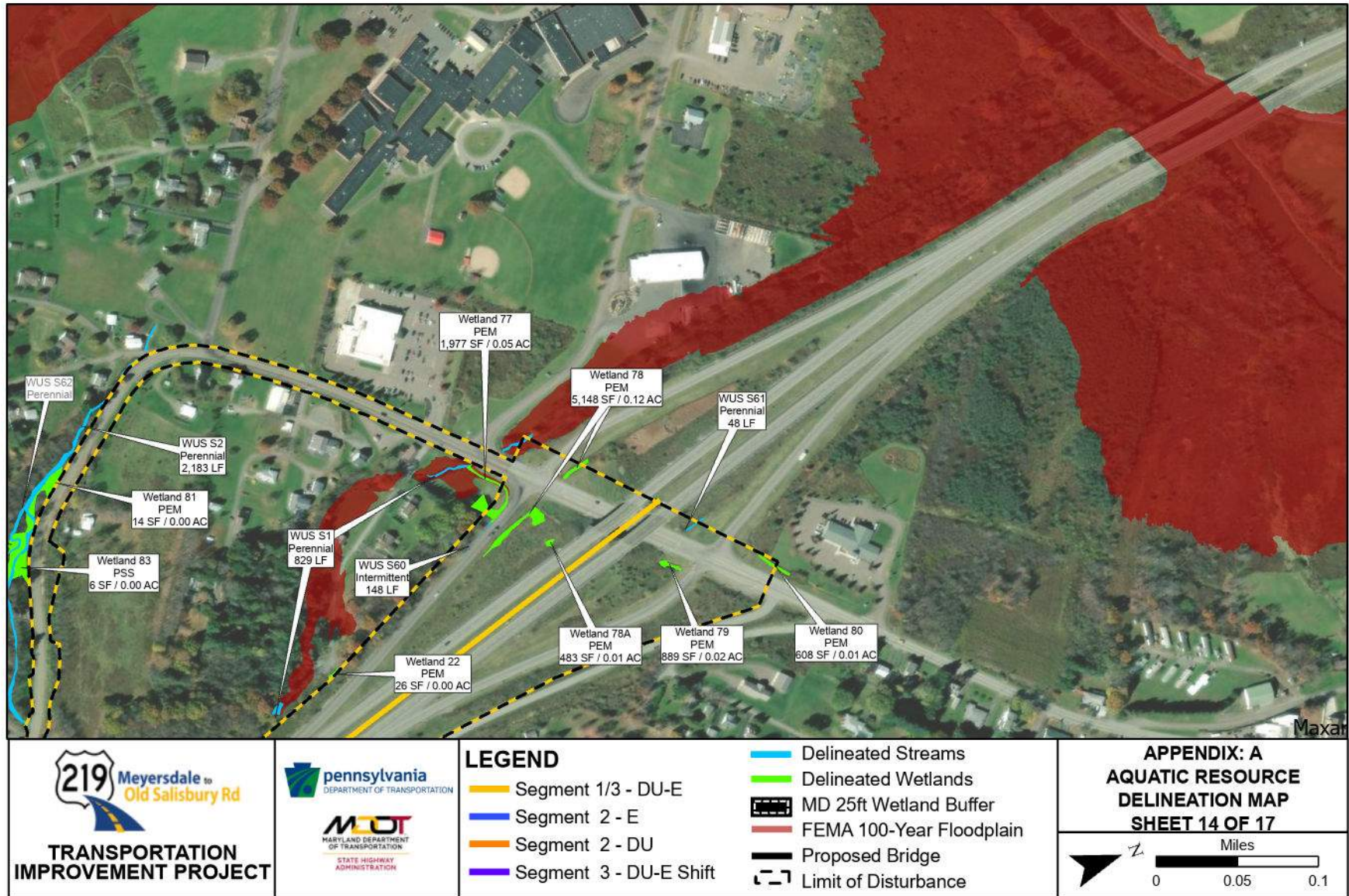




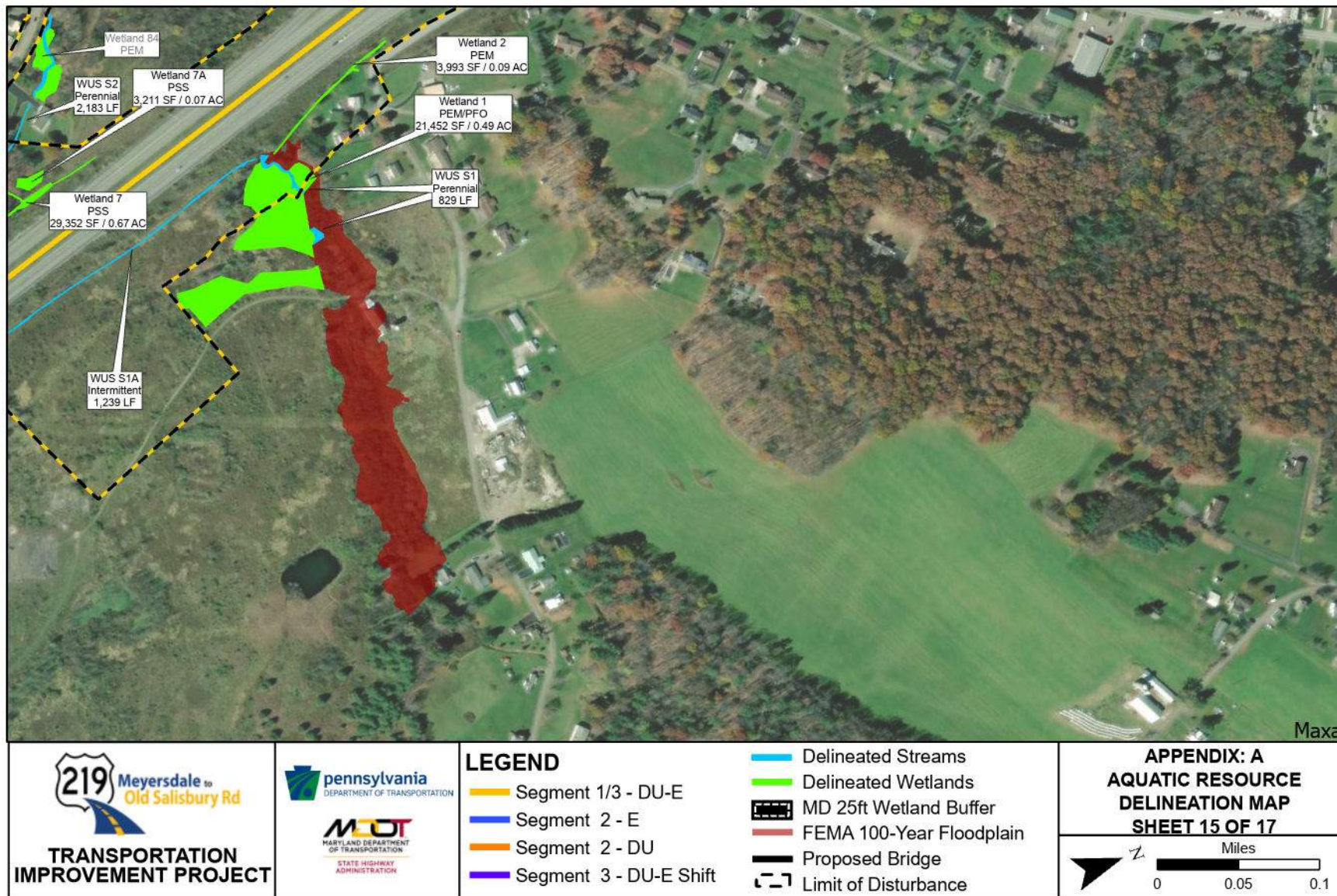
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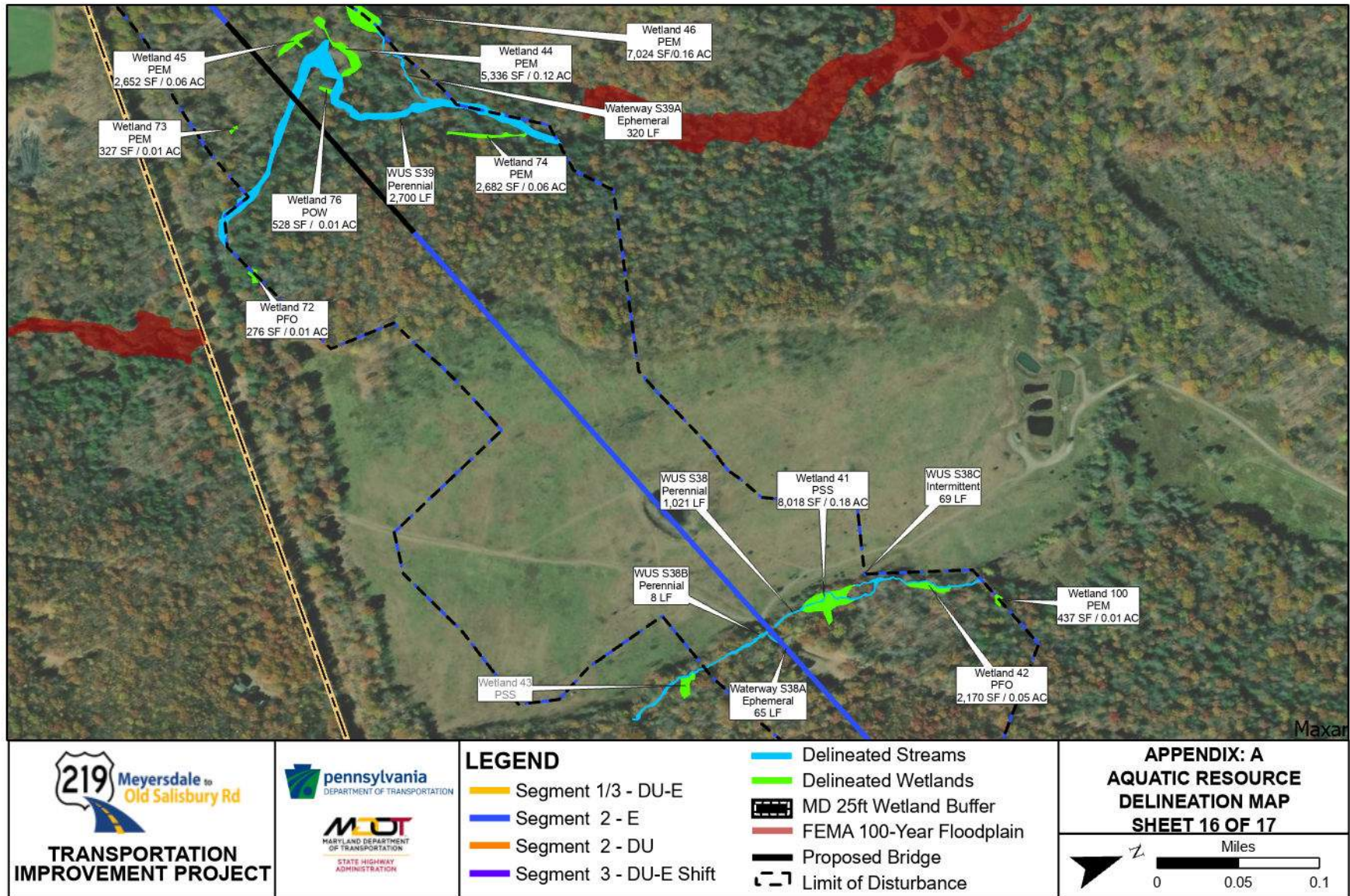
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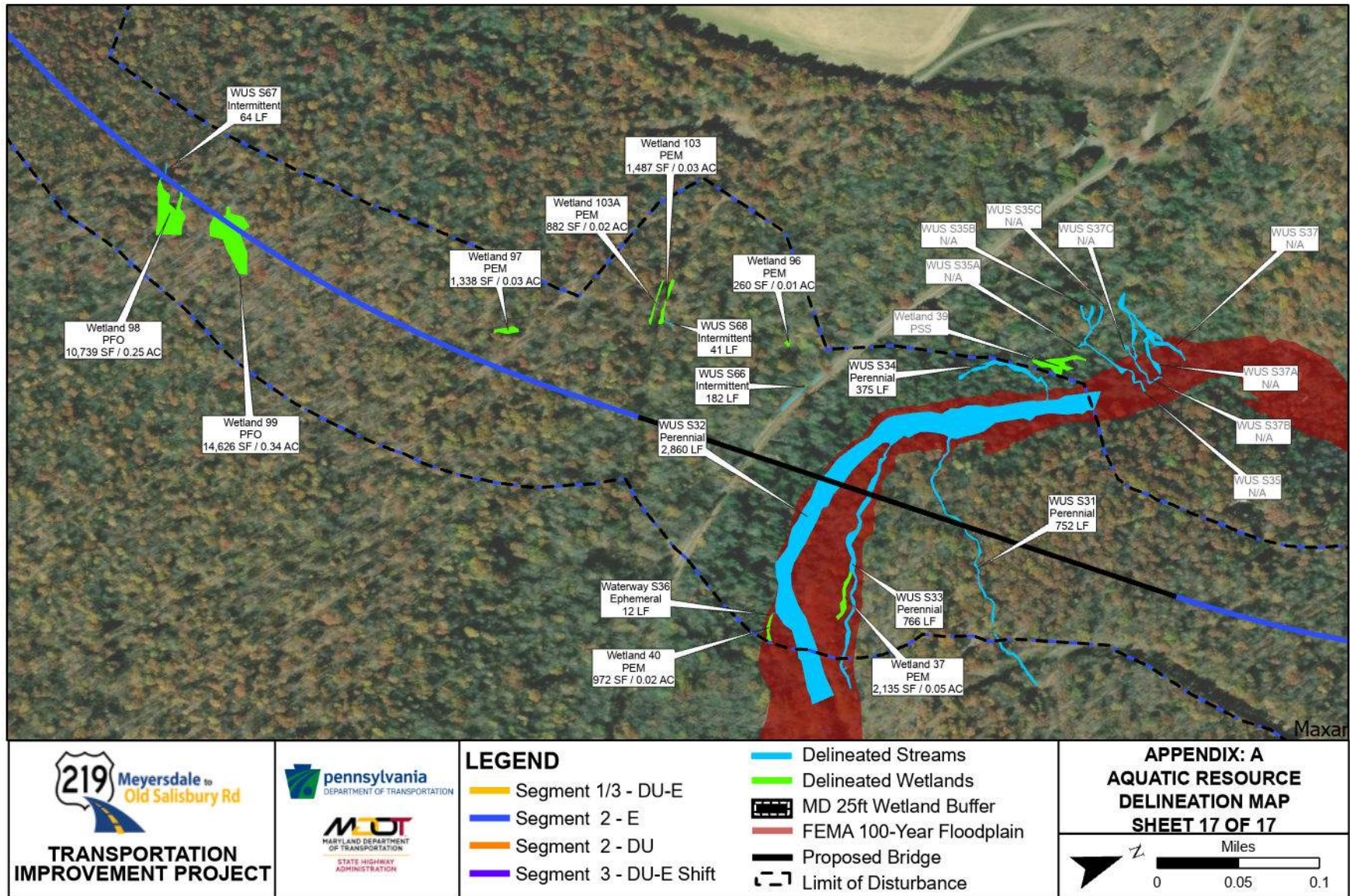
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*Grayed out labels indicated system is entirely outside the project's limits of disturbance

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"/>	Hydric 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

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"/> 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)	
Field Observations:			
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
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>				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>
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. _____	_____	_____	_____	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: <u>5 feet</u>)				
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>				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.
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>				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: **W1-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 ¹	Loc ²		
0-5	10YR 3/2	100					Lo	Roots/organics
5-13	5YR 4/1	60	7.5YR 4/6	30			SiCl	Oxidized root channels
			10YR 4/2	10				
13-18	10Y 4/1	95	10YR 5/8	5			Cl	Black organic matter

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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:**

Soils are saturated throughout.

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				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>
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>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>				
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <u>Solidago gigantea</u>	<u>25</u>	<u>Y</u>	<u>FACW</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ 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>				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				
1. _____	_____	_____	_____	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 <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)
Field Observations:		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	Dominance Test worksheet:																
1. <u>Salix nigra</u>	20	Y	OBL	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. _____				Prevalence Index worksheet: <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. _____																				
<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>																				
Sapling/Shrub Stratum (Plot size: <u>15 feet</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
6. _____																				
7. _____																				
8. _____																				
9. _____																				
<div style="text-align: right;"> <u> </u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u> </div>				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.																
Herb Stratum (Plot size: <u>5 feet</u>)																				
1. <u>Ranunculus acris</u>	90	Y	FAC																	
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. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____				Woody Vine Stratum (Plot size: <u>30 feet</u>)																
11. _____																				
<div style="text-align: right;"> <u>130</u> = Total Cover 50% of total cover: <u>65</u> 20% of total cover: <u>26</u> </div>																				
Woody Vine Stratum (Plot size: <u>30 feet</u>)																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
<div style="text-align: right;"> <u> </u> = Total Cover 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: 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"/>	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"/>
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Remarks:
Flags W4-1 through W4-7.

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 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. _____	_____	_____	_____	Prevalence Index worksheet: <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>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																				
Sapling/Shrub Stratum (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>																	
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. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																				
Herb Stratum (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>																	
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>																	
9. <u>Galium asprellum</u>	<u>5</u>	<u>N</u>	<u>OBL</u>																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>205</u> = Total Cover 50% of total cover: <u>102.5</u> 20% of total cover: <u>41</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 is not listed on the NWPL and is assumed to have an upland indicator status.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																

SOIL

Sampling Point: W4-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-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"/>	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: **W4-UP1**

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. _____	_____	_____	_____	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>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover 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 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: 5 feet) 1. <i>Solidago rugosa</i> 30 Y FAC 2. <i>Phalaris arundinacea</i> 20 Y FACW 3. <i>Symphytum officinale</i> 15 N UPL 4. <i>Symplocarpus foetidus</i> 10 N OBL 5. <i>Galium mollugo</i> 5 N FACU 6. <i>Securigera varia</i> 5 N UPL 7. _____ 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) 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.				
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>				

SOIL

Sampling Point: W4-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 ¹	Loc ²		
0-6	7.5 YR 3/1	100					SiLo	
6-13	10 YR 3/1	100					SaClLo	Gravel present
13-18	10 YR 3/1	85	7.5 YR 4/4	10			Cl	Gravel and road fines present
			7.5 YR 7/8	5				

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)				

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

Soil beyond 18 inches was a gravelly fill layer.

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: <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. _____	_____	_____	_____	Prevalence Index worksheet: <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				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																																
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. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____	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.																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																
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>	<u>80</u>	<u>Y</u>	<u>FACW</u>																																	
2. <i>Juncus effusus</i>	<u>25</u>	<u>N</u>	<u>FACW</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																
3. <i>Eupatorium perfoliatum</i>	<u>10</u>	<u>N</u>	<u>FACW</u>																																	
4. <i>Euthamia graminifolia</i>	<u>10</u>	<u>N</u>	<u>FAC</u>																																	
5. <i>Equisetum arvense</i>	<u>5</u>	<u>N</u>	<u>FAC</u>																																	
6. <i>Galium mollugo</i>	<u>5</u>	<u>N</u>	<u>FACU</u>																																	
7. <i>Dipsacus fullonum</i>	<u>5</u>	<u>N</u>	<u>FACU</u>																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
_____ = Total Cover																																				
50% of total cover: <u>70</u> 20% of total cover: <u>28</u>																																				
Woody Vine Stratum (Plot size: <u>30 feet</u>)																																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
_____ = Total Cover				Hydrophytic Vegetation Present? 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: W5-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: 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. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <u>Solidago gigantea</u>	<u>80</u>	<u>Y</u>	<u>FACW</u>	
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				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.
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				Hydrophytic Vegetation Present? 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: 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>	10	Y	UPL	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. <u>Juglans nigra</u>	5	Y	FACU	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>				Prevalence Index worksheet: <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> <u>0</u> (B) </div> </div> 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>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
<u>115</u> = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				¹ 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>				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.
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				Hydrophytic Vegetation Present? Yes <u> </u> No <u>✓</u>
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₊

[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. _____	_____	_____	_____	Prevalence Index worksheet: <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>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																				
Sapling/Shrub Stratum (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>																				
Herb Stratum (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>																				
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 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

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 ¹	Loc ²		
0-3	10 YR 5/2	90	5 YR 5/8	10			CILo	
3-18	5 YR 6/1	70	5 YR 4/6	30			CI	

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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/Sommerset 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)
Primary Indicators (minimum of one is required; check all that apply)		<input checked="" 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:

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>				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>
<u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
<u>95</u> = Total Cover 50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u>				¹ 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>				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.
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Woody Vine Stratum (Plot size: <u>30 feet</u>) 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	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>2</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																
4. _____	_____	_____	_____	Prevalence Index worksheet: <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				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation¹ (Explain)</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>Sambucus nigra</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>																	
2. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____	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.																
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>5</u> = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>																
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																				
Herb Stratum (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>	Woody Vine Stratum (Plot size: <u>30 feet</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. _____	_____	_____	_____	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. _____	_____	_____	_____																	
<u>105</u> = Total Cover																				
50% of total cover: <u>52.5</u> 20% of total cover: <u>21</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>	_____ 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)	_____ Crayfish Burrows (C8)
_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)
_____ Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)
_____ Other (Explain in Remarks)	_____ 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): 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. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: 5 feet)				
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. _____	_____	_____	_____	
_____ = Total Cover				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.
50% of total cover: <u>72.5</u> 20% of total cover: <u>29</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.)				

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: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status	
1. Robinia pseudoacacia	5	Y	FACU	Dominance Test worksheet: 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				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>
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
Sapling/Shrub Stratum (Plot size: 15 feet)				
1. Lonicera morrowii	5	Y	FACU	
2. Crataegus sp.	5	--	NS	
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: 5 feet)				
1. Solidago gigantea	35	Y	FACW	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. Symphyotrichum lateriflorum	35	Y	FACW	
3. Symphytum officinale	15	N	UPL	
4. Glechoma hederacea	10	N	FACU	
5. Alliaria petiolata	5	N	FACU	
6. Galium mollugo	5	N	FACU	
7. Securigera varia	5	N	UPL	
8. Rumex crispus	5	N	FAC	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
115 = Total Cover				
50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				
Woody Vine Stratum (Plot size: 30 feet)				
1. _____	_____	_____	_____	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.
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.) 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

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 ¹	Loc ²		
0-2	10 YR 4/3	100					Lo	
2-7	10 YR 3/3	100					CILo	with coal
7-18	10 YR 4/3	90	5 YR 5/8				SiCILo	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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. _____	_____	_____	_____	Prevalence Index worksheet: <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. _____	_____	_____	_____	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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																																
50% of total cover: <u>5</u> 20% of total cover: <u>2</u> <u>10</u> = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																																				
1. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____	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.																																
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																
11. _____	_____	_____	_____																																	
50% of total cover: <u>10</u> 20% of total cover: <u>4</u> <u>20</u> = Total Cover																																				
Herb Stratum (Plot size: <u>5 feet</u>)																																				
1. <u>Impatiens capensis</u>	<u>70</u>	<u>Y</u>	<u>FACW</u>																																	
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																																				
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: 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>				Prevalence Index worksheet: <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>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
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>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
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>																		
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.) Moss was observed growing within the lawn.				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>														

SOIL

Sampling Point: W9-UP1

[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-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.)

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 partially on a hillslope that extends down into a depression. Flags W11-1 through W11-23.			

HYDROLOGY

Wetland Hydrology Indicators: <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 checked="" 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 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)		<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)
Field Observations: 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)	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:		

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>				Prevalence Index worksheet: <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>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
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>				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Herb Stratum (Plot size: <u>5 feet</u>)																		
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>				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.														
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: 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. _____	_____	_____	_____	Prevalence Index worksheet: <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> <u>0</u> (B) </div> </div> 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.)				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>

SOIL

Sampling Point: W11-UP1

[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: 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

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 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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
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	
1. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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>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. _____	_____	_____	_____	
_____ = Total Cover				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				
Herb Stratum (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. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				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.
50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Present? 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: 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	
1. _____	_____	_____	_____	Dominance Test worksheet: 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. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				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>
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>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (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>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				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.
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				Hydrophytic Vegetation Present? 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: 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>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>5</u> x 1 = <u>5</u> FACW species <u>100</u> x 2 = <u>200</u> FAC species <u>30</u> x 3 = <u>90</u> FACU species <u>55</u> x 4 = <u>220</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>190</u> (A) <u>515</u> (B) Prevalence Index = B/A = <u>2.7</u>																																																
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>				Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																																
<u>125</u> = Total Cover 50% of total cover: <u>62.5</u> 20% of total cover: <u>25</u>				¹ 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.																																																
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																																
Herb Stratum (Plot size: <u>5 feet</u>) <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>Rubus hispidus</u></td><td><u>60</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>2. <u>Osmundastrum cinnamomeum</u></td><td><u>30</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>3. <u>Parathelypteris noveboracensis</u></td><td><u>10</u></td><td><u>N</u></td><td><u>FAC</u></td></tr> <tr><td>4. <u>Symphyotrichum novae-angliae</u></td><td><u>10</u></td><td><u>N</u></td><td><u>FACW</u></td></tr> <tr><td>5. <u>Symplocarpus foetidus</u></td><td><u>5</u></td><td><u>N</u></td><td><u>OBL</u></td></tr> <tr><td>6. <u>Lysimachia quadrifolia</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACU</u></td></tr> <tr><td>7. <u>Acer rubrum</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FAC</u></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>Rubus hispidus</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	2. <u>Osmundastrum cinnamomeum</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	3. <u>Parathelypteris noveboracensis</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	4. <u>Symphyotrichum novae-angliae</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	5. <u>Symplocarpus foetidus</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	6. <u>Lysimachia quadrifolia</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	7. <u>Acer rubrum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	8. _____	_____	_____	_____	9. _____	_____	_____	_____	10. _____	_____	_____	_____	11. _____	_____	_____	_____
	Absolute % Cover	Dominant Species?	Indicator Status																																																	
1. <u>Rubus hispidus</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>																																																	
2. <u>Osmundastrum cinnamomeum</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>																																																	
3. <u>Parathelypteris noveboracensis</u>	<u>10</u>	<u>N</u>	<u>FAC</u>																																																	
4. <u>Symphyotrichum novae-angliae</u>	<u>10</u>	<u>N</u>	<u>FACW</u>																																																	
5. <u>Symplocarpus foetidus</u>	<u>5</u>	<u>N</u>	<u>OBL</u>																																																	
6. <u>Lysimachia quadrifolia</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																																																	
7. <u>Acer rubrum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																																																	
8. _____	_____	_____	_____																																																	
9. _____	_____	_____	_____																																																	
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11. _____	_____	_____	_____																																																	
Woody Vine Stratum (Plot size: <u>30 feet</u>) <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. _____	_____	_____	_____																								
	Absolute % Cover	Dominant Species?	Indicator Status																																																	
1. _____	_____	_____	_____																																																	
2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
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															
1. <u>Quercus bicolor</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Dominance Test worksheet: 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>				Prevalence Index worksheet: <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>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
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. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>15</u> = 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 hispidus</u>	<u>20</u>	<u>Y</u>	<u>FACW</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ 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>																		
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	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.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																		
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																		

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)
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: **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>				Prevalence Index worksheet: <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" style="text-align: center;">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>																				
Sapling/Shrub Stratum (Plot size: 15 feet)																				
1. <i>Acer saccharum</i>	10	Y	FACU																	
2. <i>Magnolia acuminata</i>	10	Y	FACU																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
20 = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																				
Herb Stratum (Plot size: 5 feet)																				
1. <i>Parathelypteris noveboracensis</i>	20	Y	FAC	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
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. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50 = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																				
Woody Vine Stratum (Plot size: 30 feet)																				
1. <i>Smilax rotundifolia</i>	20	Y	FAC	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 <input checked="" type="checkbox"/>																
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 Asteraceae species was unidentifiable and was not assigned an indicator status.

SOIL

Sampling Point: W15/W16-U

[illegible]

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)
<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)
____ 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): _____
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															
1. <u>Betula alleghaniensis</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Dominance Test worksheet: 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. <u>Acer rubrum</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>				Prevalence Index worksheet: <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>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
1. <u>Betula alleghaniensis</u>	<u>35</u>	<u>Y</u>	<u>FAC</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. <u>Lindera benzoin</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Parathelypteris noveboracensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	¹ 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.														
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. _____	_____	_____	_____															
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>																		
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
1. <u>Smilax rotundifolia</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														
2. _____	_____	_____	_____															
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.) 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 ¹	Loc ²		
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		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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. _____	_____	_____	_____	Prevalence Index worksheet: <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> <u>0</u> (B) </div> </div> Prevalence Index = B/A = <u>0</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>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)				
1. <u>Quercus bicolor</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. _____	_____	_____	_____	
<div style="text-align: right;"> <u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u> </div>				
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <u>Osmunda claytoniana</u>	<u>20</u>	<u>Y</u>	<u>FAC</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
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>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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. _____	_____	_____	_____	
<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>				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	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.
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>				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> 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

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 ¹	Loc ²		
0-3	10 YR 2/1	100					Lo	Decaying organics
3-18	10 YR 3/3	65	10YR 5/2	35	D	M	SaClLo	

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input checked="" type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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)
2. <u>Quercus bicolor</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>12</u> (B)
3. <u>Betula alleghaniensis</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
4. <u>Magnolia acuminata</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>65</u> = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>				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>
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				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.
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Woody Vine Stratum (Plot size: <u>30 feet</u>) 1. <u>Smilax rotundifolia</u> <u>20</u> <u>Y</u> <u>FAC</u> 2. _____ 3. _____ 4. _____ 5. _____				
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)
<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: 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. _____	_____	_____	_____	Prevalence Index worksheet: <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> <u>0</u> (B) </div> </div> Prevalence Index = B/A = <u>0</u>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____	_____	_____	_____	
<u>55</u> = Total Cover 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				
Sapling/Shrub Stratum (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. _____	_____	_____	_____	
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>				
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <u>Medeola virginiana</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation¹ (Explain)</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>	
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>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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>	
8. <u>Sassafras albidum</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
9. _____	_____	_____	_____	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.
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	_____	_____	_____	
<u>27</u> = Total Cover 50% of total cover: <u>13.5</u> 20% of total cover: <u>5.4</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Present? 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.)				

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)
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)	____ 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): 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. _____	_____	_____	_____	Prevalence Index worksheet: <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>																				
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____	_____	_____	_____																	
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
<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. <u>Vaccinium corymbosum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Hamamelis virginiana</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____	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 in height. Woody vine – All woody vines greater than 3.28 ft in height.																
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																
Herb Stratum (Plot size: <u>5 feet</u>)																				
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>																	
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>																	
7. <u>Galearis spectabilis</u>	<u>2</u>	<u>N</u>	<u>UPL</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>																				
Woody Vine Stratum (Plot size: <u>30 feet</u>)																				
1. <u>Smilax rotundifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
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 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)
<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 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)
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>	Dominance Test worksheet: 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				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>
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>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. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
40 = Total Cover				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: <u>20</u>		20% of total cover: <u>8</u>		
Herb Stratum (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				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.
50% of total cover: <u>50</u>		20% of total cover: <u>20</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.)				

Hydrophytic Vegetation Present?
 Yes ✓ No _____

SOIL

Sampling Point: W19-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: 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:	
<p>___ 1 - Rapid Test for Hydrophytic Vegetation</p> <p>___ 2 - Dominance Test is >50%</p> <p>___ 3 - Prevalence Index is ≤3.0¹</p> <p>___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p>___ Problematic Hydrophytic Vegetation¹ (Explain)</p>	
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Definitions of Four Vegetation Strata:	
<p>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vine – All woody vines greater than 3.28 ft in height.</p>	
Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>

SOIL

Sampling Point: W19-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 ¹	Loc ²		
0-2	10 YR 3/3	100					SiLo	
2-16	10 YR 5/6	80	10 YR 5/2	15			SaClLo	gravel (5%)
			10 YR 2/1	5				

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)				

Restrictive Layer (if observed):
Type: Gravel
Depth (inches): 16

Hydric Soil Present? Yes _____ No ☒

Remarks:

Soils appear to be disturbed, possibly from the construction of the house/yard.

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

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): 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 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	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				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>
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>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				
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>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				
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. <u>Solanum dulcamara</u> <u>5</u> <u>Y</u> <u>FAC</u> 2. _____ 3. _____ 4. _____ 5. _____				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ 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.
_____ = 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.) 				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				

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>	Dominance Test worksheet: 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				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>
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				
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>	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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				
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.)				

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

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:		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>				Prevalence Index worksheet: <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)																									
Sapling/Shrub Stratum (Plot size: 15 feet)																												
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>																												
Herb Stratum (Plot size: 5 feet)																												
1. Solidago canadensis	50	Y	FACU	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																								
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>																												
Woody Vine Stratum (Plot size: 30 feet)																												
1. Solanum dulcamara	5	Y	FAC	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 <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	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. _____	_____	_____	_____	
4. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	Prevalence Index worksheet:
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: <u>0</u> 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>
Sapling/Shrub Stratum (Plot size: <u>15 feet</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>0</u> 20% of total cover: <u>0</u></div>				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.
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <u>Typha angustifolia</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Mentha spicata</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Juncus effusus</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Carex vulpinoidea</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>	
5. <u>Eupatorium perfoliatum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
6. <u>Poa palustris</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
7. <u>Symphytotrichum lanceolatum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
8. <u>Tussilago farfara</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
9. <u>Dipsacus fullonum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
10. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
11. _____	_____	_____	_____	
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>72.5</u> 20% of total cover: <u>29</u></div>				Woody Vine Stratum (Plot size: <u>30 feet</u>)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
<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: 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>	Dominance Test worksheet: 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				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>
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				
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>	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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				
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>	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 in height. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. <u>Fallopia convolvulus</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
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.) 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: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer rubrum</u>	20	Y	FAC	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>	10	Y	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
30 = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				Prevalence Index worksheet: <div style="display: flex; justify-content: space-between;"> Total % Cover of: Multiply by: </div> 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>
30 = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				
Sapling/Shrub Stratum (Plot size: 15 feet)				
1. <u>Acer rubrum</u>	10	Y	FAC	
2. <u>Vaccinium corymbosum</u>	10	Y	FACW	
3. <u>Quercus bicolor</u>	5	N	FACW	
4. <u>Hamamelis virginiana</u>	5	N	FACU	
30 = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				
Herb Stratum (Plot size: 5 feet)				
1. <u>Osmundastrum cinnamomeum</u>	35	Y	FACW	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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Carex crinita</u>	10	N	OBL	
3. <u>Viola cucullata</u>	10	N	FACW	
4. <u>Carex lurida</u>	5	N	OBL	
5. <u>Medeola virginiana</u>	5	N	FAC	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
65 = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>				
Woody Vine Stratum (Plot size: 30 feet)				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.
1. <u>Smilax rotundifolia</u>	10	Y	FAC	
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.)				
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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)	____ True Aquatic Plants (B14)	<input checked="" type="checkbox"/> 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)	____ 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): 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. _____	_____	_____	_____	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>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				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>
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>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				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (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>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				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.
50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				
Woody Vine Stratum (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				Hydrophytic Vegetation Present? 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)
<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"/> 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 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): 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>				Prevalence Index worksheet: <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>25</u> = Total Cover 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>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>				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)														
Herb Stratum (Plot size: <u>5 feet</u>)																		
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>				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.														
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. _____	_____	_____	_____															
<u>10</u> = 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.) The Solidago species was unidentifiable and was not assigned an indicator status. Mosses observed on the ground surface.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														

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)	____ 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)	____ 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): 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	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)																
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. _____	_____	_____	_____	Prevalence Index worksheet: <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>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
<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. <u>Betula alleghaniensis</u>	<u>10</u>	<u>Y</u>	<u>FAC</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>				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.																
<u>10</u> = 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>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. _____	_____	_____	_____																	
<u>55</u> = Total Cover 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																				
Woody Vine Stratum (Plot size: <u>30 feet</u>)																				
1. <u>Smilax rotundifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
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.) 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.																				

SOIL

Sampling Point: W26-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 ¹	Loc ²		
0-1	7.5YR 2.5/1	100					Lo	Organic matter
1-5	2.5Y 3/1	100					SiLo	
5-13	2.5Y 6/1	70	5YR 5/8	30			SiCl	
13-18	2.5Y 6/1	85	5YR 5/8	10			SiClLo	
			10YR 6/8	5				

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<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"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,		
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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)
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: **W23/25/26-UP1**

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Quercus montana</u>	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. <u>Acer rubrum</u>	10	Y	FAC	
3. <u>Quercus rubra</u>	10	Y	FACU	
4. <u>Sassafras albidum</u>	10	Y	FACU	
5. _____	_____	_____	_____	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>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____	_____	_____	_____	
50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
Sapling/Shrub Stratum (Plot size: 15 feet)				
1. <u>Sassafras albidum</u>	10	Y	FACU	
2. <u>Betula lenta</u>	5	Y	FACU	
3. <u>Hamamelis virginiana</u>	5	Y	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	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.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Herb Stratum (Plot size: 5 feet)				
1. <u>Medeola virginiana</u>	15	Y	FAC	
2. <u>Mitchella repens</u>	10	Y	FACU	
3. <u>Rubus hispidus</u>	5	Y	FACW	Woody Vine Stratum (Plot size: 30 feet)
4. <u>Dioscorea villosa</u>	5	Y	FAC	
5. <u>Acer rubrum</u>	5	Y	FAC	
6. <u>Quercus rubra</u>	5	Y	FACU	
7. <u>Betula lenta</u>	5	Y	FACU	1. <u>Smilax rotundifolia</u> 15 Y FAC
8. <u>Aralia nudicalis</u>	5	Y	UPL	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
50% of total cover: _____ 20% of total cover: _____				15 = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>
Woody Vine Stratum (Plot size: 30 feet)				
1. <u>Smilax rotundifolia</u>	15	Y	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	15 = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____	_____	_____	_____	

Remarks: (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: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Acer rubrum</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>	Dominance Test worksheet: 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>Betula lenta</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Magnolia acuminata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>75</u> = Total Cover 50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>				Prevalence Index worksheet: <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>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>Betula lenta</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Acer rubrum</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Rosa multiflora</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
4. <u>Aronia melanocarpa</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Rubus hispidus</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Osmunda claytoniana</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Athyrium angustum</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
4. <u>Carex crinita</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>															
5. <u>Osmundastrum cinnamomeum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
6. <u>Lysimachia quadrifolia</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
7. <u>Microstegium vimineum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>															
8. <u>Leersia virginica</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
9. <u>Juncus effusus</u>	<u>2</u>	<u>N</u>	<u>FACW</u>															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>117</u> = Total Cover 50% of total cover: <u>58.5</u> 20% of total cover: <u>23.4</u>				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.														
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
1. <u>Smilax rotundifolia</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>																		
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

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 ¹	Loc ²		
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	

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
MLRA 147, 148)	MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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

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 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)
Field Observations:		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. _____	_____	_____	_____	Prevalence Index worksheet: <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> <u>0</u> (B) </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>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)				
1. <u>Betula lenta</u>	<u>15</u>	<u>Y</u>	<u>FACU</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
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. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<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>				
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <u>Athyrium angustum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	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.
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>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<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>				
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. _____	_____	_____	_____	
<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>				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: **W28-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 ¹	Loc ²		
0-2	10 YR 4/2	100					SiLo	
2-7	10 YR 4/2	90	10 YR 5/4	10			SiLo	
7-11	2.5 Y 6/3	60	10 YR 6/6	40			SaClLo	
11-18	2.5 Y 6/1	85	2.5 Y 5/6	15			SaClLo	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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: 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>				Prevalence Index worksheet: <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>																		
Sapling/Shrub Stratum (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>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>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)														
Herb Stratum (Plot size: <u>5 feet</u>)																		
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>				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.														
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
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.				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____														

SOIL

Sampling Point: W27/28-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 ¹	Loc ²		
0-2	7.5YR 2.5/2	100					Lo	Organics present
2-18	10YR 7/4	100					SaClLo	Coarse sand with 10% gravel

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

²Location: 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) (MLRA 147)						
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)						
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)						
<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"/> (MLRA 136, 147)						
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,							
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)							
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	³ 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) (MLRA 148)							
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)							

Restrictive Layer (if observed):	Hydric Soil Present? Yes _____ No <input checked="" 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: 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>	Dominance Test worksheet: 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				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>
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)				
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				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (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>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				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.
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.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____

SOIL

Sampling Point: W29-DP1

[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-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>				Prevalence Index worksheet: <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>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
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>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)														
Herb Stratum (Plot size: <u>5 feet</u>)																		
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>				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.														
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.) Eurybia divaricata is not listed on the NWPL and is assumed to have an upland indicator status.				Hydrophytic Vegetation Present? 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 ¹	Loc ²		
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	

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

²Location: 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 Soils³:

- ☐ 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)

³Indicators 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

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)	<input checked="" type="checkbox"/> 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)
<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><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. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>65</u> = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>				Prevalence Index worksheet: <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>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)																	
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
1. <u>Betula lenta</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
2. _____	_____	_____	_____															
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>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Persicaria maculosa</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
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>															
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>															
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. _____	_____	_____	_____															
<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. _____	_____	_____	_____	Hydrophytic Vegetation Present? 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: W30-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 ¹	Loc ²		
0-2	10YR 4/2	97	7.5YR 4/6	3			SiLo	Organic matter present
2-10	2.5Y 4/1	95	10YR 5/8	5			SiLo	
10-18	5PB 6/1	60	5PB 4/1	40			CiLo	

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input checked="" type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
MLRA 147, 148)	MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)				

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present?

Yes ☒

No ☐

Remarks:

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>	Dominance Test worksheet: 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				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>
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				
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>	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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				
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.)				

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>	Dominance Test worksheet: 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>				Prevalence Index worksheet: <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>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
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>				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)														
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Rubus hispidus</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>															
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>				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.														
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
1. <u>Rubus allegheniensis</u>	<u>2</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Smilax rotundifolia</u>	<u>2</u>	<u>Y</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>4</u> = Total Cover 50% of total cover: <u>2</u> 20% of total cover: <u>0.8</u>																		
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: W34-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: 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: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.71% (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 = 0

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

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

 Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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: 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)
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 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: W36-DP1

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: 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				Prevalence Index worksheet: <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>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
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																		
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
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																		
50% of total cover: <u>30</u> 20% of total cover: <u>12</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.)				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____														

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 ¹	Loc ²		
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

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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.

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.								
5.								
6.								
7.								
				<u> </u> = Total Cover			Prevalence Index worksheet:	
50% of total cover: <u>0</u>				20% of total cover: <u>0</u>			<u> </u> Total % Cover of: <u> </u> Multiply by: <u> </u>	
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)							OBL species <u>0</u> x 1 = <u>0</u>	
1.							FACW species <u>0</u> x 2 = <u>0</u>	
2.							FAC species <u>0</u> x 3 = <u>0</u>	
3.							FACU species <u>0</u> x 4 = <u>0</u>	
4.							UPL species <u>0</u> x 5 = <u>0</u>	
5.							Column Totals: <u>0</u> (A) <u>0</u> (B)	
6.							Prevalence Index = B/A = <u>0</u>	
7.								
8.							Hydrophytic Vegetation Indicators:	
9.							<u> </u> 1 - Rapid Test for Hydrophytic Vegetation	
				<u> </u> = Total Cover			<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
50% of total cover: <u>0</u>				20% of total cover: <u>0</u>			<u> </u> 3 - Prevalence Index is ≤3.0 ¹	
Herb Stratum (Plot size: <u>5 feet</u>)							<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
1.	<u>Urtica dioica</u>	<u>3</u>	<u>Y</u>	<u>FACU</u>			<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
2.	<u>Arisaema triphyllum</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>				
3.	<u>Persicaria maculosa</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>				
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
				<u>7</u> = Total Cover			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
50% of total cover: <u>3.5</u>				20% of total cover: <u>1.4</u>			Definitions of Four Vegetation Strata:	
Woody Vine Stratum (Plot size: <u>30 feet</u>)							Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
1.							Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
2.							Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
3.							Woody vine – 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>				
Remarks: (Include photo numbers here or on a separate sheet.)							Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <u> </u>	
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>	<u>60</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)																																																
2. <u>Fagus grandifolia</u>	<u>20</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>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>				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>																																																
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																																
<u>130</u> = Total Cover 50% of total cover: <u>65</u> 20% of total cover: <u>26</u>				¹ 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.																																																
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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

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"/> 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)	
Field Observations:		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 <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. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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>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				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
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>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				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.
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>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Present? 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 ¹	Loc ²		
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	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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

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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															
1. <u>Magnolia acuminata</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</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>12.5%</u> (A/B)														
2. <u>Betula lenta</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Quercus rubra</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>70</u> = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>				Prevalence Index worksheet: <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)																	
<u>40</u> = Total Cover 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>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>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Polygonatum biflorum</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
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>																		
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	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.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
Hydrophytic Vegetation Present? 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. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (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>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				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.
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</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>				
Hydrophytic Vegetation Present? 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

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 ¹	Loc ²		
0-3	7.5YR 2.5/2	100					SiLo	
3-8	10YR 3/1	70	10YR 2/1	30			SiLo	Organic matter
8-18	2.5YR 3/2	90	10YR 4/1	10			ClLo	

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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>		____ 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)	____ 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): 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	
1. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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>	
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. _____	_____	_____	_____	
_____ = Total Cover				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: <u>55</u> 20% of total cover: <u>22</u>				
Herb Stratum (Plot size: <u>5 feet</u>)				
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>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				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.
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				Hydrophytic Vegetation Present? 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: 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>	
3. <u>Betula lenta</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
4. <u>Acer rubrum</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
5. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	Prevalence Index worksheet: <div style="display: flex; justify-content: space-between;"> <div> Total % Cover of: <div style="margin-top: 5px;">OBL species <u>0</u></div> <div style="margin-top: 5px;">FACW species <u>0</u></div> <div style="margin-top: 5px;">FAC species <u>0</u></div> <div style="margin-top: 5px;">FACU species <u>0</u></div> <div style="margin-top: 5px;">UPL species <u>0</u></div> <div style="margin-top: 5px;">Column Totals: <u>0</u> (A)</div> </div> <div> Multiply by: <div style="margin-top: 5px;">x 1 = <u>0</u></div> <div style="margin-top: 5px;">x 2 = <u>0</u></div> <div style="margin-top: 5px;">x 3 = <u>0</u></div> <div style="margin-top: 5px;">x 4 = <u>0</u></div> <div style="margin-top: 5px;">x 5 = <u>0</u></div> <div style="margin-top: 5px;"><u>0</u> (B)</div> </div> </div> <div style="margin-top: 10px;"> Prevalence Index = B/A = <u>0</u> </div>
<u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)				
1. <u>Hamamelis virginiana</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Vaccinium angustifolium</u>	<u>10</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>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				
Herb Stratum (Plot size: <u>5 feet</u>)				
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. _____	_____	_____	_____	
<u>65</u> = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</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. _____	_____	_____	_____	
<u>10</u> = 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.)				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>

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 ¹	Loc ²		
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	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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>	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>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				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>
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>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>		
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <u>Rubus hispidus</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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>		
Woody Vine Stratum (Plot size: <u>30 feet</u>)				
1. _____	_____	_____	_____	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.
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: **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 ¹	Loc ²		
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				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Acer rubrum</i>	10	Y	FAC	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. <i>Nyssa sylvatica</i>	5	Y	FAC	
3. <i>Quercus rubra</i>	5	Y	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
20 = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				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>
25 = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				
75 = Total Cover 50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				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.
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
10 = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
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.) Club moss present in wetland. Trees dying and falling in adjacent uplands.				

SOIL

Sampling Point: **W43-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 ¹	Loc ²		
0-5	10YR 4/1	85	10YR 5/4	10			SiLo	
			10YR 2/1	5				
5-12	10YR 6/2	60	10YR 5/6	40			SaClLo	
12-18	10YR 5/3	95	10YR 5/6	5			SaClLo	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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: 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)	____ Other (Explain in Remarks)
<input checked="" type="checkbox"/> Iron Deposits (B5)	____ 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)

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) 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				Prevalence Index worksheet: <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. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>															
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>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
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																		
50% of total cover: <u>70</u> 20% of total cover: <u>28</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.) Sphagnum moss present in wetland. Dodder approximately 5% cover																		

Hydrophytic Vegetation Indicators:
 ___ 1 - Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
 ___ 3 - Prevalence Index is ≤3.0¹
 ___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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: **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 ¹	Loc ²		
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

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

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)

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: 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>				Prevalence Index worksheet: <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>																		
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>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>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
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>																		
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>																		
Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (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.														
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****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 ¹	Loc ²		
0-4	7.5YR 3/2	100					Lo	Dry
4-8	7.5YR 3/1	100					SaLo	
8-18	7.5YR 4/4	75	7.5YR 4/3	20			Sa	
			5YR 4/6	5				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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: 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	
1. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <i>Symphyotrichum novae-angliae</i>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
2. <i>Viola cucullata</i>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
3. <i>Dryopteris cristata</i>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
4. <i>Symphyotrichum lateriflorum</i>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
5. <i>Persicaria sagittata</i>	<u>20</u>	<u>Y</u>	<u>OBL</u>	
6. <i>Symphyotrichum puniceum</i>	<u>10</u>	<u>N</u>	<u>OBL</u>	
7. <i>Carex stricta</i>	<u>10</u>	<u>N</u>	<u>OBL</u>	
8. <i>Rubus hispidus</i>	<u>10</u>	<u>N</u>	<u>FACW</u>	
9. <i>Impatiens capensis</i>	<u>5</u>	<u>N</u>	<u>FACW</u>	
10. <i>Carex lurida</i>	<u>5</u>	<u>N</u>	<u>OBL</u>	
11. <i>Scutellaria lateriflora</i>	<u>5</u>	<u>N</u>	<u>FACW</u>	
_____ = Total Cover				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.
50% of total cover: <u>77.5</u> 20% of total cover: <u>31</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Present? 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.) 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

Tree Stratum (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		
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. <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		
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:	1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100% (A/B)
Prevalence Index worksheet:	
Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 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 ¹	
<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	

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: 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

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 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)	
Field Observations:			
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u> </u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
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	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. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)																																											
4. _____	_____	_____	_____	Prevalence Index worksheet: <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>														
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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>				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																																											
Sapling/Shrub Stratum (Plot size: 15 feet) <table style="width: 100%;"> <tr> <td>1. Fraxinus pennsylvanica</td> <td><u>5</u></td> <td><u>Y</u></td> <td><u>FACW</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> <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> </table> <div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u></div>					1. Fraxinus pennsylvanica	<u>5</u>	<u>Y</u>	<u>FACW</u>	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____	6. _____	_____	_____	_____	7. _____	_____	_____	_____	8. _____	_____	_____	_____	9. _____	_____	_____	_____							
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8. _____	_____	_____	_____																																												
9. _____	_____	_____	_____																																												
Herb Stratum (Plot size: 5 feet) <table style="width: 100%;"> <tr><td>1. Impatiens capensis</td><td><u>15</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>2. Carex crinita</td><td><u>5</u></td><td><u>Y</u></td><td><u>OBL</u></td></tr> <tr><td>3. Poa palustris</td><td><u>5</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>4. Dryopteris intermedia</td><td><u>5</u></td><td><u>Y</u></td><td><u>FACU</u></td></tr> <tr><td>5. Dichanthelium clandestinum</td><td><u>2</u></td><td><u>N</u></td><td><u>FAC</u></td></tr> <tr><td>6. Persicaria virginiana</td><td><u>1</u></td><td><u>N</u></td><td><u>FAC</u></td></tr> <tr><td>7. Geum canadense</td><td><u>1</u></td><td><u>N</u></td><td><u>FACU</u></td></tr> <tr><td>8. Polygonatum biflorum</td><td><u>1</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> </table> <div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u></div>				1. Impatiens capensis	<u>15</u>	<u>Y</u>	<u>FACW</u>	2. Carex crinita	<u>5</u>	<u>Y</u>	<u>OBL</u>	3. Poa palustris	<u>5</u>	<u>Y</u>	<u>FACW</u>	4. Dryopteris intermedia	<u>5</u>	<u>Y</u>	<u>FACU</u>	5. Dichanthelium clandestinum	<u>2</u>	<u>N</u>	<u>FAC</u>	6. Persicaria virginiana	<u>1</u>	<u>N</u>	<u>FAC</u>	7. Geum canadense	<u>1</u>	<u>N</u>	<u>FACU</u>	8. Polygonatum biflorum	<u>1</u>	<u>N</u>	<u>FACU</u>	9. _____	_____	_____	_____	10. _____	_____	_____	_____	11. _____	_____	_____	_____
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Woody Vine Stratum (Plot size: 30 feet) <table style="width: 100%;"> <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> </table> <div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: <u>0</u> 20% of total cover: <u>0</u></div>				1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____	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 <input checked="" type="checkbox"/> No _____																							
1. _____	_____	_____	_____																																												
2. _____	_____	_____	_____																																												
3. _____	_____	_____	_____																																												
4. _____	_____	_____	_____																																												
5. _____	_____	_____	_____																																												
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 ¹	Loc ²		
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	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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

Wetland Hydrology Indicators: <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"/> 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 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)		<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 checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>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) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
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. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (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>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
2. <i>Onoclea sensibilis</i>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
3. <i>Viola cucullata</i>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
4. <i>Thelypteris palustris</i>	<u>2</u>	<u>N</u>	<u>FACW</u>	
5. <i>Polygonatum biflorum</i>	<u>1</u>	<u>N</u>	<u>FACU</u>	
6. <i>Lycopus americanus</i>	<u>1</u>	<u>N</u>	<u>OBL</u>	
7. <i>Vaccinium corymbosum</i>	<u>1</u>	<u>N</u>	<u>FACW</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				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.
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.)				

Hydrophytic Vegetation Present?
 Yes ☒ No ☐

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

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"/> 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 checked="" 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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.5</u>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
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)			
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>	Dominance Test worksheet: 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				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>
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				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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				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.
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				Hydrophytic Vegetation Present? 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

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 ¹	Loc ²		
0-3	7.5YR 2.5/1	100					SiLo	Heavy organic matter
3-8	10YR 3/1	80	10YR 4/1	20			SaLo	
8-12	10YR 4/2	80	10YR 5/2	10			Sa	
			10YR 4/6	10				

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input checked="" type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input checked="" type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)				

Restrictive Layer (if observed):
Type: Rock/ Bedrock
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: 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

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 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)
Field Observations:		
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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	
1. <u>Betula alleghaniensis</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	Dominance Test worksheet: 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				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>
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>)				
1. <u>Thelypteris palustris</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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>	
7. _____	_____	_____	_____	
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>)				
1. _____	_____	_____	_____	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 <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: W50-DP1

[illegible]

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 <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 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: 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) 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>Acer saccharum</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Betula lenta</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				Prevalence Index worksheet: <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)																	
<u>25</u> = Total Cover 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>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. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>25</u> = Total Cover 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>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. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>33</u> = Total Cover 50% of total cover: <u>16.5</u> 20% of total cover: <u>6.6</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.)				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____														

SOIL

Sampling Point: W50-UP1

[illegible]

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. _____	_____	_____	_____	Prevalence Index worksheet: <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				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																																
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>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. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____	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.																																
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
_____	_____	_____	_____																																	
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																
50% of total cover: <u>6</u> 20% of total cover: <u>2.4</u>																																				
Herb Stratum (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. _____	_____	_____	_____																																	
_____	_____	_____	_____																																	
_____ = Total Cover																																				
50% of total cover: <u>63.5</u> 20% of total cover: <u>25.4</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: 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. _____	_____	_____	_____	Prevalence Index worksheet: <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				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																																
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>Rosa multiflora</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>																																	
2. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____	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.																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
<u>15</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																
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>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>	Hydrophytic Vegetation Present? 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>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____	Hydrophytic Vegetation Present? 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>																																				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____	Hydrophytic Vegetation Present? 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>		
<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 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): 0.5
Water Table Present? Yes _____ No ☒ Depth (inches): _____
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: W55-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>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
4. _____	_____	_____	_____	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>
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>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Rosa multiflora</u>	<u>2</u>	<u>Y</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>3.5</u> 20% of total cover: <u>1.4</u>				
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <u>Persicaria virginiana</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Viola cucullata</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Poa palustris</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Geum canadense</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. <u>Rubus allegheniensis</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>24</u> 20% of total cover: <u>9.6</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.)				Hydrophytic Vegetation Present? Yes <u>✓</u> 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 ¹	Loc ²		
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	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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																																												
1. _____	_____	_____	_____	Dominance Test worksheet: 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				Prevalence Index worksheet: <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>																																															
Sapling/Shrub Stratum (Plot size: 15 feet) 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: 5 feet) <table style="width: 100%;"> <tr><td>1. Poa pratensis</td><td>25</td><td>Y</td><td>FACU</td></tr> <tr><td>2. Leersia oryzoides</td><td>20</td><td>Y</td><td>OBL</td></tr> <tr><td>3. Impatiens capensis</td><td>20</td><td>Y</td><td>FACW</td></tr> <tr><td>4. Persicaria sagittata</td><td>15</td><td>Y</td><td>OBL</td></tr> <tr><td>5. Eupatorium serotinum</td><td>15</td><td>Y</td><td>FAC</td></tr> <tr><td>6. Carex lurida</td><td>15</td><td>Y</td><td>OBL</td></tr> <tr><td>7. Mimulus ringens</td><td>10</td><td>N</td><td>OBL</td></tr> <tr><td>8. Euthamia graminifolia</td><td>10</td><td>N</td><td>FAC</td></tr> <tr><td>9. Juncus effusus</td><td>5</td><td>N</td><td>FACW</td></tr> <tr><td>10. Andropogon virginicus</td><td>5</td><td>N</td><td>FACU</td></tr> <tr><td>11. Scirpus atrovirens</td><td>5</td><td>N</td><td>OBL</td></tr> </table> _____ = Total Cover 50% of total cover: <u>72.5</u> 20% of total cover: <u>29</u>				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
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																																												
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.)																																															

Hydrophytic Vegetation Indicators:
 ___ 1 - Rapid Test for Hydrophytic Vegetation
 ___ 2 - Dominance Test is >50%
 ___ 3 - Prevalence Index is ≤3.0¹
 ___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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: 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:

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: W58-DP1

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (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				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.
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				
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.)				

Hydrophytic Vegetation Present?
 Yes ✓ No _____

SOIL

Sampling Point: W58-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: 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 ¹			
<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)			
¹ 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 <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 ¹	Loc ²		
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				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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:	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </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:
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	
1. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (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				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.
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.				

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:

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

 Sampling Point: W60-UP1

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Prunus serotina</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>40%</u> (A/B)														
2. <u>Acer saccharum</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Robinia pseudoacacia</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. <u>Carya ovata</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>90</u> = Total Cover 50% of total cover: <u>45</u> 20% of total cover: <u>18</u>				Prevalence Index worksheet: <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>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>Rubus allegheniensis</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Carya ovata</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Ulmus americana</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>															
4. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Polygonum virginianum</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Osmorhiza claytonii</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
<u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				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.														
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
1. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																		
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																		

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 ¹	Loc ²		
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

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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: <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				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>
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>Alnus glutinosa</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Betula alleghaniensis</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (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>Parathelypteris noveboracensis</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Verbesina alternifolia</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Thalictrum pubescens</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
4. <u>Dichanthelium clandestinum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
5. <u>Lycopus uniflorus</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
6. <u>Symphytotrichum novae-angliae</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
7. <u>Impatiens capensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				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.
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>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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 ¹	Loc ²		
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	

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

²Location: 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 Soils³:

- ☐ 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)

³Indicators 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"/>	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 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)	
<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 checked="" type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u> </u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
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"/> (includes capillary fringe)	Depth (inches): <u>8</u>		
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. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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>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				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (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>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				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.
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.) Club moss observed growing in wetland.				

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 ¹	Loc ²		
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

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input checked="" type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input checked="" type="checkbox"/> MLRA 147, 148)	<input checked="" type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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)
<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 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): 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: 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: 8 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 9 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: 88.89% (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<div style="text-align: right;">25 = Total Cover</div> <div>50% of total cover: 12.5 20% of total cover: 5</div>				Prevalence Index worksheet: <div style="display: flex; justify-content: space-between;"> <div>Total % Cover of:</div> <div>Multiply by:</div> </div> <div style="display: flex; justify-content: space-between;"> <div>OBL species 0</div> <div>x 1 = 0</div> </div> <div style="display: flex; justify-content: space-between;"> <div>FACW species 0</div> <div>x 2 = 0</div> </div> <div style="display: flex; justify-content: space-between;"> <div>FAC species 0</div> <div>x 3 = 0</div> </div> <div style="display: flex; justify-content: space-between;"> <div>FACU species 0</div> <div>x 4 = 0</div> </div> <div style="display: flex; justify-content: space-between;"> <div>UPL species 0</div> <div>x 5 = 0</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Column Totals: 0 (A)</div> <div>0 (B)</div> </div> <div style="text-align: center; margin-top: 10px;">Prevalence Index = B/A = 0</div>
Sapling/Shrub Stratum (Plot size: 15 feet)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Carpinus caroliniana</i>	15	Y	FAC	
2. <i>Betula alleghaniensis</i>	5	Y	FAC	
3. <i>Tsuga canadensis</i>	5	Y	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<div style="text-align: right;">25 = Total Cover</div> <div>50% of total cover: 12.5 20% of total cover: 5</div>				
Herb Stratum (Plot size: 5 feet)				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.
1. <i>Tiarella cordifolia</i>	15	Y	FAC	
2. <i>Thalictrum dioicum</i>	10	Y	FAC	
3. <i>Parathelypteris noveboracensis</i>	5	Y	FAC	
4. <i>Arisaema triphyllum</i>	5	Y	FACW	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<div style="text-align: right;">35 = Total Cover</div> <div>50% of total cover: 17.5 20% of total cover: 7</div>				
Woody Vine Stratum (Plot size: 30 feet)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<div style="text-align: right;">_____ = Total Cover</div> <div>50% of total cover: 0 20% of total cover: 0</div>				
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"/>	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 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 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 checked="" 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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u><1</u>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
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)			
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. _____	_____	_____	_____	Prevalence Index worksheet: <div style="display: flex; justify-content: space-between;"> <div> Total % Cover of: <div>OBL species <u>0</u></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>x 1 = <u>0</u></div> <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 style="text-align: center; margin-top: 10px;"> Prevalence Index = B/A = <u>0</u> </div>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<div style="text-align: right; margin-right: 20px;"> 50% of total cover: <u>25</u> </div> <div style="text-align: right;"> 20% of total cover: <u>10</u> </div>				Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
Sapling/Shrub Stratum (Plot size: 15 feet)				
1. <i>Fraxinus pennsylvanica</i>	10	Y	FACW	
2. <i>Sambucus nigra</i>	10	Y	FAC	
3. <i>Carpinus caroliniana</i>	5	N	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. <i>Crataegus phaeopyrum</i>	5	N	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	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.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<div style="text-align: right; margin-right: 20px;"> 50% of total cover: <u>15</u> </div> <div style="text-align: right;"> 20% of total cover: <u>6</u> </div>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Herb Stratum (Plot size: 5 feet)				
1. <i>Impatiens capensis</i>	20	Y	FACW	
2. <i>Viola cucullata</i>	15	Y	FACW	
3. <i>Packera aurea</i>	15	Y	FACW	Remarks: (Include photo numbers here or on a separate sheet.) Eurybia divaricata was not list on the NWPL and is assumed to have an upland indicator status. Green ash tree was dying, but was not dead.
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. _____	_____	_____	_____	
<div style="text-align: right; margin-right: 20px;"> 50% of total cover: <u>35</u> </div> <div style="text-align: right;"> 20% of total cover: <u>14</u> </div>				
Woody Vine Stratum (Plot size: 30 feet)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<div style="text-align: right; margin-right: 20px;"> _____ = Total Cover </div> <div style="text-align: right;"> 50% of total cover: <u>0</u> 20% of total cover: <u>0</u> </div>				

SOIL

Sampling Point: W64-DP1

[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: 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. _____	_____	_____	_____	Prevalence Index worksheet: <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>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
<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. <u>Carpinus caroliniana</u>	<u>10</u>	<u>Y</u>	<u>FAC</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>																				
Herb Stratum (Plot size: <u>5 feet</u>)																				
1. <u>Solidago gigantea</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>																	
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>																	
<u>125</u> = 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.) Forested portion of wetland continues into emergent floodplain bench.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																

SOIL

Sampling Point: W64-DP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/3	100					SaLo	
3-18	10YR 4/1	75	2.5YR 3/6	10			SaLo	
			7.5YR 5/8	15				

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input checked="" type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)				

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No _____

Remarks:
Soils were damp, but not saturated.

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: 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															
1. <i>Acer rubrum</i>	40	Y	FAC	Dominance Test worksheet: 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. _____	_____	_____	_____															
70 = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>				Prevalence Index worksheet: <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)																	
20 = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																		
Sapling/Shrub Stratum (Plot size: 15 feet)																		
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. _____	_____	_____	_____															
20 = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																		
Herb Stratum (Plot size: 5 feet)																		
1. <i>Packera aurea</i>	15	Y	FACW	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
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. _____	_____	_____	_____															
80 = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>																		
Woody Vine Stratum (Plot size: 30 feet)																		
1. _____	_____	_____	_____	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.														
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: **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 ¹	Loc ²		
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	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		____ 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. _____	_____	_____	_____	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>
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: 15 feet)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	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.
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: 5 feet)				
1. <u>Symplocarpus foetidus</u>	<u>3</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
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. _____	_____	_____	_____	Woody Vine Stratum (Plot size: 30 feet)
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	_____ = Total Cover 50% of total cover: <u>4</u> 20% of total cover: <u>1.6</u>
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	_____	_____	_____	
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: **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 ¹	Loc ²		
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

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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: 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	Dominance Test worksheet:																																																
1. <u>Carya ovata</u>	<u>10</u>	<u>Y</u>	<u>FACU</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>5</u> (B)																																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</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>				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>																																																
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																																
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																																
<u>105</u> = Total Cover 50% of total cover: <u>52.5</u> 20% of total cover: <u>21</u>				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.																																																
<u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																																
Herb Stratum (Plot size: <u>5 feet</u>) <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>Symphotrichum lanceolatum</u></td><td><u>40</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>2. <u>Persicaria maculosa</u></td><td><u>15</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>3. <u>Vernonia noveboracensis</u></td><td><u>10</u></td><td><u>N</u></td><td><u>FACW</u></td></tr> <tr><td>4. <u>Galium obtusum</u></td><td><u>10</u></td><td><u>N</u></td><td><u>FACW</u></td></tr> <tr><td>5. <u>Symplocarpus foetidus</u></td><td><u>10</u></td><td><u>N</u></td><td><u>OBL</u></td></tr> <tr><td>6. <u>Solidago rugosa</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FAC</u></td></tr> <tr><td>7. <u>Oxalis dillenii</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACU</u></td></tr> <tr><td>8. <u>Apocynum cannabinum</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACU</u></td></tr> <tr><td>9. <u>Elymus virginicus</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACW</u></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>Symphotrichum lanceolatum</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	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. _____	_____	_____	_____
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Woody Vine Stratum (Plot size: <u>30 feet</u>) <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>Clematis virginiana</u></td><td><u>20</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>Clematis virginiana</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____																								
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5. _____	_____	_____	_____																																																	
Remarks: (Include photo numbers here or on a separate sheet.)																																																				

SOIL

Sampling Point: W67-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 ¹	Loc ²		
1-5	7.5YR 3/2	80	10YR 5/3	20			SaLo	
5-10	10YR 5/3	80	10YR 5/6	10			CILo	
			2.5Y 5/2	10				
10-18	10YR 7/3	80	10YR 6/6	20			SaCILo	Oxidized root channels

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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"/>	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

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				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																																								
				¹ 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 in height. Woody vine – All woody vines greater than 3.28 ft in height.																																																								
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																																								
Sapling/Shrub Stratum (Plot size: 15 feet) <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. <i>Viburnum lentago</i></td><td>10</td><td>Y</td><td>FAC</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> <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 colspan="2" style="text-align: right;">10 = Total Cover</td> <td colspan="2"></td> </tr> <tr> <td colspan="2" style="text-align: right;">50% of total cover: 5 20% of total cover: 2</td> <td colspan="2"></td> </tr> </tbody> </table>						Absolute % Cover	Dominant Species?	Indicator Status	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											
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Remarks: (Include photo numbers here or on a separate sheet.)																																																												

SOIL

Sampling Point: W68-DP1

[illegible]

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)
<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 checked="" 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:

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. _____	_____	_____	_____	Prevalence Index worksheet: <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			
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Column Totals:	0 (A)		0 (B)																																	
Prevalence Index = B/A = 0																																				
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
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5 = Total Cover 50% of total cover: 2.5 20% of total cover: 1				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)																																
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8. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
_____	_____	_____	_____																																	
120 = Total Cover 50% of total cover: 60 20% of total cover: 24																																				
Herb Stratum (Plot size: 5 feet)																																				
1. <i>Persicaria sagittata</i>	40	Y	OBL	Remarks: (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. _____	_____	_____	_____																																	
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Woody Vine Stratum (Plot size: 30 feet)																																				
1. _____	_____	_____	_____																																	
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3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
_____ = Total Cover 50% of total cover: 0 20% of total cover: 0																																				

SOIL

Sampling Point: **W69-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 ¹	Loc ²		
0-1	10YR 6/1	90	10YR 5/6	10			Lo	oxidized root channels
1-6	10YR 4/1	80	10YR 3/6	20			CI Lo	oxidized root channels
6-12	10YR 6/2	60	10YR 5/3	30			CI	oxidized root channels
			10YR 5/6	10				
12-18	7.5YR 6/3	60	10YR 7/8	40			CI	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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 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. _____	_____	_____	_____	
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				Prevalence Index worksheet: 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>
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. _____	_____	_____	_____	
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
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. _____	_____	_____	_____	
<u>105</u> = Total Cover 50% of total cover: <u>52.5</u> 20% of total cover: <u>21</u>				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.
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>				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____
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

Wetland Hydrology Indicators: <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)
Field Observations: 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)	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:		

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. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				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>
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>				¹ 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.
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>) 1. <u>Betula lenta</u> <u>10</u> <u>Y</u> <u>FACU</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____				
Herb Stratum (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> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____				
Woody Vine Stratum (Plot size: <u>30 feet</u>) 1. <u>Smilax rotundifolia</u> <u>15</u> <u>Y</u> <u>FAC</u> 2. _____ 3. _____ 4. _____ 5. _____				
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) 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				Prevalence Index worksheet: <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: 15 feet)																		
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: 5 feet)																		
1. <i>Impatiens capensis</i>	50	Y	FACW	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
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</i> sp.	2	--	NA															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>43.5</u> 20% of total cover: <u>17.4</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.) Dead trees and shrubs were observed in the wetland. The <i>Ranunculus</i> species was unidentifiable and therefore not included in the Dominance test.																		

SOIL

Sampling Point: W60-DP2

[illegible]

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)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): <1
Water Table Present? Yes ☒ No ☐ Depth (inches): 10
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:

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)																																																
2. <u>Acer rubrum</u>	<u>5</u>	<u>Y</u>	<u>FAC</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>66.67%</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>				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>																																																
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																																
<u>70</u> = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u>				¹ 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.																																																
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																																
Herb Stratum (Plot size: <u>5 feet</u>) <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>Dryopteris carthusiana</u></td><td><u>30</u></td><td><u>Y</u></td><td><u>FAC</u></td></tr> <tr><td>2. <u>Rubus hispidus</u></td><td><u>20</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>3. <u>Symplocarpus foetidus</u></td><td><u>15</u></td><td><u>Y</u></td><td><u>OBL</u></td></tr> <tr><td>4. <u>Aster sp.</u></td><td><u>5</u></td><td><u>-</u></td><td><u>-</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>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. _____	_____	_____	_____
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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.) The Aster species was unidentifiable and therefore not included in the Dominance test.																																																				

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 ¹	Loc ²		
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	

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input checked="" type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input checked="" type="checkbox"/> MLRA 147, 148)	<input checked="" type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)				

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)
Field Observations:		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>				Prevalence Index worksheet: <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)																	
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
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>				Hydrophytic Vegetation Indicators: <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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)														
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Impatiens capensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>															
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>				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.														
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
1. <u>Vitis riparia</u>	<u>2</u>	<u>N</u>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>2</u> = Total Cover 50% of total cover: <u>1</u> 20% of total cover: <u>0.4</u>				Hydrophytic Vegetation Present? 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)
<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:		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>				Prevalence Index worksheet: <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>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
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>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Dryopteris intermedia</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
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>																		
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</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.)				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>														

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 <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

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"/> 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)	
Field Observations:			
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
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: 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. _____	_____	_____	_____	Prevalence Index worksheet: <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. _____	_____	_____	_____																	
_____	_____	_____	_____																	
<u>32</u> = Total Cover 50% of total cover: <u>16</u> 20% of total cover: <u>6.4</u>				Hydrophytic Vegetation Indicators: <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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
<u>12</u> = Total Cover 50% of total cover: <u>6</u> 20% of total cover: <u>2.4</u>																				
Sapling/Shrub Stratum (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>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
3. <u>Betula lenta</u>	<u>2</u>	<u>N</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____	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.																
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>12</u> = Total Cover 50% of total cover: <u>6</u> 20% of total cover: <u>2.4</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																
Herb Stratum (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>	Woody Vine Stratum (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. _____	_____	_____	_____																	
<u>47</u> = Total Cover 50% of total cover: <u>23.5</u> 20% of total cover: <u>9.4</u>				2. _____ 3. _____ 4. _____ 5. _____																
Woody Vine Stratum (Plot size: <u>30 feet</u>)																				
1. <u>Smilax rotundifolia</u>	<u>2</u>	<u>---</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____	2 _____ = Total Cover 50% of total cover: <u>1</u> 20% of total cover: <u>0.4</u>																
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
<u>2</u> = Total Cover 50% of total cover: <u>1</u> 20% of total cover: <u>0.4</u>				2 _____ = Total Cover 50% of total cover: <u>1</u> 20% of total cover: <u>0.4</u>																
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

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 ¹	Loc ²		
0-3	10YR 3/1	100					SiLo	Fibrous roots, organics
3-7	10YR 6/1	100					SiCl	Organics
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.								² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:				Indicators for Problematic Hydric Soils³:				
<input type="checkbox"/> Histosol (A1)				<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)				
<input type="checkbox"/> Histic Epipedon (A2)				<input type="checkbox"/> Coast Prairie Redox (A16)				
<input type="checkbox"/> Black Histic (A3)				<input type="checkbox"/> (MLRA 147, 148)				
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)				<input type="checkbox"/> Piedmont Floodplain Soils (F19)				
<input type="checkbox"/> Stratified Layers (A5)				<input type="checkbox"/> (MLRA 136, 147)				
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)				<input type="checkbox"/> Very Shallow Dark Surface (TF12)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)				<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Thick Dark Surface (A12)								
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N,								
MLRA 147, 148)								
<input type="checkbox"/> Sandy Gleyed Matrix (S4)				³ Indicators of hydrophytic vegetation and				
<input type="checkbox"/> Sandy Redox (S5)				wetland hydrology must be present,				
<input type="checkbox"/> Stripped Matrix (S6)				unless disturbed or problematic.				
Restrictive Layer (if observed):								
Type: Rock _____								
Depth (inches): 7 _____							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: 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>				Prevalence Index worksheet: <div style="display: flex; justify-content: space-between;"> <div> Total % Cover of: <div>OBL species <u>0</u></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>x 1 = <u>0</u></div> <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 style="text-align: center; margin-top: 10px;"> Prevalence Index = B/A = <u>0</u> </div>																																																
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																																																
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				¹ 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>				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.																																																
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																																
Herb Stratum (Plot size: 5 feet) <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																																																	
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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. _____	_____	_____	_____																																																	
Woody Vine Stratum (Plot size: 30 feet) <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 <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"/>
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Remarks:

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> Sparsely Vegetated Concave Surface (B8)
<u> </u> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<u> </u> Moss Trim Lines (B16)
<u> </u> Water Marks (B1)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Sediment Deposits (B2)	<u> </u> Crayfish Burrows (C8)
<u> </u> Drift Deposits (B3)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<u> </u> Aquatic Fauna (B13)	<u> </u> FAC-Neutral Test (D5)

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. _____	_____	_____	_____	Prevalence Index worksheet: <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>																										
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Column Totals:	<u>0</u> (A)	<u>0</u> (B)																										
Prevalence Index = B/A = <u>0</u>																												
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
_____ = Total Cover				Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																								
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. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																								
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____	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.																								
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																								
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 macloskeyi</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>																									
2. <u>Aster sp.</u>	<u>5</u>	<u>-</u>	<u>-</u>	Remarks: (Include photo numbers here or on a separate sheet.) The Aster species was unidentifiable and therefore not included in the Dominance test.																								
3. <u>Eurybia radula</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>																									
4. <u>Phalaris arundinacea</u>	<u>2</u>	<u>N</u>	<u>FACW</u>																									
5. <u>Poa palustris</u>	<u>2</u>	<u>N</u>	<u>FACW</u>																									
6. _____	_____	_____	_____	Woody Vine Stratum (Plot size: <u>30 feet</u>)																								
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
10. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																								
11. _____	_____	_____	_____																									
_____ = Total Cover																												
50% of total cover: <u>12</u> 20% of total cover: <u>4.8</u>																												

SOIL

Sampling Point: W74-DP1

[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: 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. _____	_____	_____	_____	Dominance Test worksheet: 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				Prevalence Index worksheet: <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>																	
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Column Totals: <u>122</u> (A)	<u>304</u> (B)																	
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																		
Sapling/Shrub Stratum (Plot size: 15 feet)																		
1. <u>Rosa multiflora</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
Herb Stratum (Plot size: 5 feet)																		
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																		
50% of total cover: <u>66</u> 20% of total cover: <u>26.4</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.)				Hydrophytic Vegetation Present? <div style="display: flex; justify-content: space-around; margin-top: 10px;"> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> </div>														

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 ¹	Loc ²		
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		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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 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:

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	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>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				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>
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				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <i>Dactylis glomerata</i>	30	Y	FACU	
2. <i>Poa pratensis</i>	30	Y	FACU	
3. <i>Taraxacum officinale</i>	15	N	FACU	
4. <i>Vicia sativa</i>	10	N	FACU	
5. <i>Coreopsis lanceolata</i>	10	N	FACU	
6. <i>Barbarea vulgaris</i>	5	N	FACU	
7. <i>Torilis nodosa</i>	2	N	UPL	
8. <i>Anthoxanthum odoratum</i>	2	N	FACU	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
104 = Total Cover				
50% of total cover: <u>52</u> 20% of total cover: <u>20.8</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.)				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

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.

Sampling Point: W76-DP1

Tree Stratum (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			
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. <i>Acer saccharum</i>	1	Y	FACU
2. <i>Impatiens capensis</i>	1	Y	FACW
3. <i>Parathelypteris noveboracensis</i>	1	Y	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
3 = Total Cover			
50% of total cover: 1.5 20% of total cover: 0.6			
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.) Sparsely vegetated concave surface			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
Total Number of Dominant Species Across All Strata:	3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	66.67% (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 checked="" type="checkbox"/> 2 - Dominance Test is >50%	
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	

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. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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				Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (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				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.
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				Hydrophytic Vegetation Present? 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: W77-DP1

[illegible]

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 _____ 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: W77/78-UPL

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
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				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.
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				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
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.				

SOIL

Sampling Point: W77/78-UP

[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: 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: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: 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				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>
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				Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (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>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				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.
50% of total cover: <u>49.5</u> 20% of total cover: <u>19.8</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Present? 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: 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)																
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. _____	_____	_____	_____	Prevalence Index worksheet: <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				Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
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>Cornus amomum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>																	
2. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____	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.																
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>																				
Herb Stratum (Plot size: <u>5 feet</u>)																				
1. <u>Typha X glauca</u>	<u>60</u>	<u>Y</u>	<u>OBL</u>																	
2. <u>Poa sp.</u>	<u>30</u>	<u>-</u>	<u>-</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
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>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
7. <u>Dipsacus fullonum</u>	<u>2</u>	<u>N</u>	<u>FACU</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
11. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>61</u> 20% of total cover: <u>24.4</u>																				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
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 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)																								
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. _____	_____	_____	_____	Prevalence Index worksheet: <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>																												
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>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																												
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.																												

SOIL

Sampling Point: W79-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-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. _____	_____	_____	_____	Prevalence Index worksheet: <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>				Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
<u>_____</u> = 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. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____	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.																
<u>_____</u> = 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>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>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
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. _____	_____	_____	_____	Woody Vine Stratum (Plot size: <u>30 feet</u>)																
11. _____	_____	_____	_____																	
<u>127</u> = Total Cover 50% of total cover: <u>63.5</u> 20% of total cover: <u>25.4</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>		
<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 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:

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				Prevalence Index worksheet: <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>	<u>30</u>	<u>Y</u>	<u>FACW</u>															
2. <i>Danthonia compressa</i>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
3. <i>Lotus corniculatus</i>	<u>20</u>	<u>N</u>	<u>FACU</u>															
4. <i>Carex vulpinoidea</i>	<u>10</u>	<u>N</u>	<u>OBL</u>															
5. <i>Rosa multiflora</i>	<u>5</u>	<u>N</u>	<u>FACU</u>															
6. <i>Ranunculus acris</i>	<u>5</u>	<u>N</u>	<u>FAC</u>															
7. <i>Securigera varia</i>	<u>5</u>	<u>N</u>	<u>UPL</u>															
8. <i>Juncus effusus</i>	<u>5</u>	<u>N</u>	<u>FACW</u>															
9. <i>Rumex crispus</i>	<u>2</u>	<u>N</u>	<u>FAC</u>															
10. <i>Leucanthemum vulgare</i>	<u>2</u>	<u>N</u>	<u>UPL</u>															
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.				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>														

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 ¹	Loc ²		
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		

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

²Location: 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 Soils³:

- ☐ 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)

³Indicators 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)
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 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	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. _____	_____	_____	_____	Prevalence Index worksheet: <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. _____	_____	_____	_____																									
_____ = Total Cover				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																								
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>Juglans nigra</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>																									
2. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																								
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____	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.																								
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
<u>15</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																								
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>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>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																								
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. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																								
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
10. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																								
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>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																								
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____	Hydrophytic Vegetation Present? 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.) The Aster species was unidentifiable and was 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: 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	
1. <u>Juglans nigra</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	Dominance Test worksheet: 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. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
10 = Total Cover				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>
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>Lonicera morrowii</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
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>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
25 = Total Cover				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (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>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. _____	_____	_____	_____	
105 = Total Cover				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 in height. Woody vine – 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				
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.				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>

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 ¹	Loc ²		
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	SiCiLo	

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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	
1. <u>Acer saccharum</u>	10	Y	FACU	Dominance Test worksheet: 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. _____				
10 = Total Cover				Prevalence Index worksheet: 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>5</u> 20% of total cover: <u>2</u>				
Sapling/Shrub Stratum (Plot size: 15 feet)				
1. <u>Salix nigra</u>	20	Y	OBL	
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	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. <u>Juglans nigra</u>	2	N	FACU	
8. _____				
9. _____				
46 = Total Cover				
50% of total cover: <u>23</u> 20% of total cover: <u>9.2</u>				
Herb Stratum (Plot size: 5 feet)				
1. <u>Symplocarpus foetidus</u>	60	Y	OBL	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.
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	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
9. _____				
10. _____				
11. _____				
147 = Total Cover				
50% of total cover: <u>73.5</u> 20% of total cover: <u>29.4</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: 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)
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 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

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)																																																
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>				Prevalence Index worksheet: <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>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																																																
<u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																																
<u>100</u> = Total Cover 50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				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.																																																
<u> </u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				Hydrophytic Vegetation Present? Yes <u>✓</u> No <u> </u>																																																
Herb Stratum (Plot size: <u>5 feet</u>) <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>30</u></td><td><u>Y</u></td><td><u>OBL</u></td></tr> <tr><td>2. <u>Impatiens capensis</u></td><td><u>30</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>3. <u>Rudbeckia laciniata</u></td><td><u>20</u></td><td><u>Y</u></td><td><u>FACW</u></td></tr> <tr><td>4. <u>Thilactrum sp.</u></td><td><u>10</u></td><td><u>N</u></td><td><u>-</u></td></tr> <tr><td>5. <u>Galium asprellum</u></td><td><u>5</u></td><td><u>N</u></td><td><u>OBL</u></td></tr> <tr><td>6. <u>Alliaria petiolata</u></td><td><u>5</u></td><td><u>N</u></td><td><u>FACU</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>						Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Symplocarpus foetidus</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	2. <u>Impatiens capensis</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	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. _____	_____	_____	_____
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2. _____	_____	_____	_____																																																	
3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
5. _____	_____	_____	_____																																																	
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

[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: 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. _____	_____	_____	_____	
15 = Total Cover				Prevalence Index worksheet: 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>7.5</u> 20% of total cover: <u>3</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)				
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. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
20 = Total Cover				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (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>Symplocarpus foetidus</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	
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>	
9. <u>Veratrum viride</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
119 = Total Cover				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.
50% of total cover: <u>59.5</u> 20% of total cover: <u>23.8</u>				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Present? 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.) 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

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 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u> </u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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"/> (includes capillary fringe)	Depth (inches): <u>Surface</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
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. _____	_____	_____	_____	Prevalence Index worksheet: 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>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Sapling/Shrub Stratum (Plot size: 15 feet)				Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Cornus amomum</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	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 in height. Woody vine – All woody vines greater than 3.28 ft in height.
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Herb Stratum (Plot size: 5 feet)				
1. <u>Symplocarpus foetidus</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	
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. _____	_____	_____	_____	Woody Vine Stratum (Plot size: 30 feet)
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: 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.) The Aster species was not identifiable and was not included in the hydrophytic vegetation indicator tests.				

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>				Prevalence Index worksheet: <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>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ 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>				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 in height. Woody vine – 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>				Hydrophytic Vegetation Present? Yes <u>✓</u> No <u> </u>																																																
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3. _____	_____	_____	_____																																																	
4. _____	_____	_____	_____																																																	
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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

[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-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)
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 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) 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				Prevalence Index worksheet: 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. <u>Salix nigra</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	
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>	
_____ = Total Cover				
50% of total cover: <u>7</u> 20% of total cover: <u>2.8</u>				
Herb Stratum (Plot size: 5 feet)				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Symplocarpus foetidus</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>	
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>	
_____ = Total Cover				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.
50% of total cover: <u>67.5</u> 20% of total cover: <u>27</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>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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

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 ¹	Loc ²		
0-2	10YR 3/2	100					CILo	
2-8	10YR 2/1	70	5YR 4/4	30	C	PL	SiCl	Oxidized root channels
8-18	10YR 5/1	80	7.5YR 5/6	10	C	PL	Cl	Oxidized root channels
			10YR 4/1	10	D	M		

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input checked="" type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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	
1. <u>Quercus rubra</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	Dominance Test worksheet: 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. _____	_____	_____	_____	
7. _____	_____	_____	_____	
10 = Total Cover				Prevalence Index worksheet: 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>5</u> 20% of total cover: <u>2</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)				
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. _____	_____	_____	_____	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
55 = 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>)				
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. _____	_____	_____	_____	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.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
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.)				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____

SOIL

Sampling Point: W89-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 ¹	Loc ²		
0-2	10YR 2/2	100					Lo	Organics
2-8	10YR 3/1	85	10YR 3/6	15	C	M	ClLo	
8-15	2.5Y 3/1	95	5YR 3/4	5	C	PL	ClLo	Oxidized root channels
15-18	2.5Y 4/1	70	10YR 3/4	15	C	M	ClLo	
			7.5YR 4/4	15	C	PL		Oxidized root channels

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.
²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <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) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <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) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <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) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) <small>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</small>
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Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> 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-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. _____	_____	_____	_____	Prevalence Index worksheet: 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				
Sapling/Shrub Stratum (Plot size: 15 feet)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	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.
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: 0 20% of total cover: 0				
Herb Stratum (Plot size: 5 feet)				
1. Impatiens capensis	10	Y	FACW	Hydrophytic Vegetation Present? 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				
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.) Lemna species observed in area of ponded water				

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: 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)
Field Observations:		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. _____	_____	_____	_____	Prevalence Index worksheet: <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>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)																	
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____	_____	_____	_____															
<div style="text-align: right;">80 = Total Cover</div> <div>50% of total cover: <u>40</u> 20% of total cover: <u>16</u></div>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
1. <u>Carya ovata</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. <u>Rubus occidentalis</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____	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 in height. Woody vine – All woody vines greater than 3.28 ft in height.														
_____	_____	_____	_____															
_____	_____	_____	_____															
_____	_____	_____	_____															
<div style="text-align: right;">20 = Total Cover</div> <div>50% of total cover: <u>10</u> 20% of total cover: <u>4</u></div>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Impatiens capensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Present? Yes _____ No <u>✓</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. _____	_____	_____	_____															
_____	_____	_____	_____															
<div style="text-align: right;">70 = Total Cover</div> <div>50% of total cover: <u>35</u> 20% of total cover: <u>14</u></div>																		
Woody Vine Stratum (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.) Aster sp. was not identifiable and was not included in the hydrophytic vegetation indicator tests.																		

SOIL

Sampling Point: W90-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 ¹	Loc ²		
0-8	10YR 3/1	90	10YR 3/2	10	C	M	SiCl	Concentrations are not redox features
8-16	10YR 3/2	100					SiCl	
16-18	10YR 5/3	80	10YR 3/2	20	C	M	SiCl	

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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. _____	_____	_____	_____	Prevalence Index worksheet: 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>				
Sapling/Shrub Stratum (Plot size: 15 feet)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	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.
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
Herb Stratum (Plot size: 5 feet)				
1. <i>Symplocarpus foetidus</i>	30	Y	OBL	Hydrophytic Vegetation Present? 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>				
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: 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>				Prevalence Index worksheet: 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>
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)				
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>				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>5 feet</u>)				
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	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.
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>				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				
1. _____				Hydrophytic Vegetation Present? 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 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 ¹	Loc ²		
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		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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)
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. _____	_____	_____	_____	Prevalence Index worksheet: 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>				
Sapling/Shrub Stratum (Plot size: 15 feet) 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: 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. _____ _____ = Total Cover 50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>				Hydrophytic Vegetation Indicators: <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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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>				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.
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.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____

SOIL

Sampling Point: W96-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 ¹	Loc ²		
0-3	2.5Y 4/2	100	2.5Y 6/4					
3-8	2.5Y 5/1	95	10YR 6/8	5	C	M		Gravely

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<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"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,		
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

Restrictive Layer (if observed):

Type: road bed

Depth (inches): 8

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: 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) 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. <u>Betula lenta</u>	<u>5</u>	<u>Y</u>	<u>FACU</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>				Prevalence Index worksheet: 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>
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>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: <u>5 feet</u>)				
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>				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 in height. Woody vine – All woody vines greater than 3.28 ft in height.
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>				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: **W97-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 ¹	Loc ²		
0-2	5YR 2.5/2	100					Lo	
2-5	2.5Y 4/1	100					SiLo	
5-18	7.5R 6/1	60	7.5R 6/8	30	C	M	ClLo	
			7.5R 4/6	10	C	PL		oxidized root channel

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

²Location: 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 Soils³:

- ☐ 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)

³Indicators 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: 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	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>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. _____				Prevalence Index worksheet: 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>
7. _____				
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)				
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>	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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Kalmia latifolia</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____				
9. _____				
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				
Herb Stratum (Plot size: <u>5 feet</u>)				
1. <u>Osmundastrum cinnamomeum</u>	<u>80</u>	<u>Y</u>	<u>FACW</u>	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.
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. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				Woody Vine Stratum (Plot size: <u>30 feet</u>)
<u>115</u> = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				
1. <u>Smilax glauca</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
2. _____				
3. _____				
4. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
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.)				

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 ¹	Loc ²		
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	

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<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"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 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: 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"/>	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 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): 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: W99-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>	Dominance Test worksheet: 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. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				Prevalence Index worksheet: <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>2</u></td> <td>x 2 = <u>4</u></td> </tr> <tr> <td>FAC species <u>1</u></td> <td>x 3 = <u>3</u></td> </tr> <tr> <td>FACU species <u>4</u></td> <td>x 4 = <u>16</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>7</u> (A)</td> <td><u>23</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.3</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>2</u>	x 2 = <u>4</u>	FAC species <u>1</u>	x 3 = <u>3</u>	FACU species <u>4</u>	x 4 = <u>16</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>7</u> (A)	<u>23</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>2</u>	x 2 = <u>4</u>																	
FAC species <u>1</u>	x 3 = <u>3</u>																	
FACU species <u>4</u>	x 4 = <u>16</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>7</u> (A)	<u>23</u> (B)																	
<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>Betula lenta</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
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. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
<u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Osmundastrum cinnamomeum</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)														
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. _____	_____	_____	_____															
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. <u>Smilax glauca</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	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 in height. Woody vine – All woody vines greater than 3.28 ft in height.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																		
Hydrophytic Vegetation Present? Yes <u>✓</u> No _____																		

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

SOIL

Sampling Point: W99-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 ¹	Loc ²		
0-4	10YR 2/1	100					Lo	Organics
4-9	2.5Y 4/1	90	2.5Y 6/1	10	D	M	SaLo	
9-10	2.5Y 6/1	100					SaLo	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.							² 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) (MLRA 147)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)			<input type="checkbox"/> (MLRA 147, 148)		
<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"/> (MLRA 136, 147)		
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)			<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) (LRR N, MLRA 147, 148)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)			³ 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) (MLRA 148)					
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)					
Restrictive Layer (if observed):								
Type: Rock _____								
Depth (inches): 10_____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
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: 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. _____	_____	_____	_____	Prevalence Index worksheet: 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>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u>✓</u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ 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.)				Hydrophytic Vegetation Present? 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. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: _____ (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 _____	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>	
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>				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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u> </u> = 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>																	
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. _____	_____	_____	_____																	
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. _____	_____	_____	_____																	
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: 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.

Sampling Point: W102-DP1

Tree Stratum (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		
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. Symplocarpus foetidus				40	Y	OBL
2. Impatiens capensis				20	Y	FACW
3. Polygonatum biflorum				5	N	FACU
4. Poa palustris				5	N	FACW
5. _____				_____	_____	_____
6. _____				_____	_____	_____
7. _____				_____	_____	_____
8. _____				_____	_____	_____
9. _____				_____	_____	_____
10. _____				_____	_____	_____
11. _____				_____	_____	_____
				70 = Total Cover		
50% of total cover: 35				20% of total cover: 14		
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:	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 = 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	
Hydrophytic Vegetation Indicators:	
1 - Rapid Test for Hydrophytic Vegetation	
2 - Dominance Test is >50%	
3 - Prevalence Index is ≤3.0 ¹	
4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Definitions of 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	

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 <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"/>
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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 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) 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. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <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. <u>Rubus occidentalis</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>															
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>																		
Herb Stratum (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																		
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.) Rubus occidentalis is not listed on the NWPL and is assumed to have an upland indicator status.																		

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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: 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. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: 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: <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				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
Herb Stratum (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				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.
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				Hydrophytic Vegetation Present? 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>				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>																																																
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																																
<u>115</u> = Total Cover 50% of total cover: <u>57.5</u> 20% of total cover: <u>23</u>				¹ 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.																																																
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																																																
Herb Stratum (Plot size: <u>5 feet</u>) <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. _____	_____	_____	_____
Herb Stratum (Plot size: <u>5 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status																																																	
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Woody Vine Stratum (Plot size: <u>30 feet</u>) <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.) 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>		____ 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: 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>	Dominance Test worksheet: 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>				Prevalence Index worksheet: <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>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
1. <u>Rosa multiflora</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation¹ (Explain)</u>														
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>				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Solidago altissima</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>															
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. _____																		
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				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.														
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. _____																		
<u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				Hydrophytic Vegetation Present? Yes _____ No <u>✓</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)
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 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>	Dominance Test worksheet: 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>				Prevalence Index worksheet: <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>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
1. <u>Cornus amomum</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation¹ (Explain)</u> ¹ 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>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Impatiens capensis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	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.														
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>																		
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
1. <u>Vitis aestivalis</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Present? 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 ¹	Loc ²		
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	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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>		_____ 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: UP4

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>5</u> (A)																																																
2. <u>Betula lenta</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>10</u> (B)																																																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																																																
4. _____	_____	_____	_____																																																	
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<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>				¹ 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.																																																
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Woody Vine Stratum (Plot size: <u>30 feet</u>) <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. <u>Smilax rotundifolia</u></td><td><u>20</u></td><td><u>Y</u></td><td><u>FAC</u></td></tr> <tr><td>2. <u>Parthenocissus quinquefolia</u></td><td><u>10</u></td><td><u>Y</u></td><td><u>FACU</u></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. <u>Smilax rotundifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	2. <u>Parthenocissus quinquefolia</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____																								
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5. _____	_____	_____	_____																																																	
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:

Sampling Point: UP5

Tree Stratum (Plot size: 30 feet)		Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Betula lenta</u>		15	Y	FACU
2. <u>Nyssa sylvatica</u>		10	Y	FAC
3. <u>Fagus grandifolia</u>		10	Y	FACU
4. _____				
5. _____				
6. _____				
7. _____				
		35 = Total Cover		
50% of total cover: 17.5		20% of total cover: 7		
Sapling/Shrub Stratum (Plot size: 15 feet)		Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Nyssa sylvatica</u>		20	Y	FAC
2. <u>Magnolia acuminata</u>		15	Y	FACU
3. <u>Betula lenta</u>		10	N	FACU
4. <u>Quercus alba</u>		10	N	FACU
5. <u>Hamamelis virginiana</u>		5	N	FACU
6. _____				
7. _____				
8. _____				
9. _____				
		60 = Total Cover		
50% of total cover: 30		20% of total cover: 12		
Herb Stratum (Plot size: 5 feet)		Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Rubus hispidus</u>		50	Y	FACW
2. <u>Symphytotrichum lateriflorum</u>		40	Y	FACW
3. <u>Thelypteris palustris</u>		5	N	FACW
4. <u>Dennstaedtia punctilobula</u>		5	N	FACU
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
		100 = Total Cover		
50% of total cover: 50		20% of total cover: 20		
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:	4 (A)
Total Number of Dominant Species Across All Strata:	7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	57.14% (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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

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 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:		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>	Dominance Test worksheet: 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>				Prevalence Index worksheet: <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>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
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>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Osmundastrum cinnamomeum</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>															
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>																		
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>																		
Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>																		
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 ¹	Loc ²		
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	

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input checked="" type="checkbox"/> (MLRA 147, 148)			
<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 checkbox"="" checked="" type="checkbox/>(MLRA 136, 147)</td></tr><tr><td><input type="/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input checked="" type="checkbox"/> MLRA 147, 148)	<input checked="" type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)				

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)																
2. <u>Ulmus americana</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>7</u> (B)																
3. <u>Acer saccharum</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>42.86%</u> (A/B)																
4. _____	_____	_____	_____	Prevalence Index worksheet: <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. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
$\frac{65}{20} = \text{Total Cover}$ 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																				
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. _____	_____	_____	_____																	
$\frac{40}{20} = \text{Total Cover}$ 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>																				
Herb Stratum (Plot size: <u>5 feet</u>)																				
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. _____	_____	_____	_____																	
$\frac{160}{20} = \text{Total Cover}$ 50% of total cover: <u>80</u> 20% of total cover: <u>32</u>																				
Woody Vine Stratum (Plot size: <u>30 feet</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
$\frac{0}{20} = \text{Total Cover}$ 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>																				
Hydrophytic Vegetation Present? Yes _____ No <u>✓</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.																				

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)																
2. <u>Populus balsamifera</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)																
3. <u>Magnolia acuminata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)																
4. _____	_____	_____	_____	Prevalence Index worksheet: <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. _____	_____	_____	_____	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 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
$\frac{30}{15} = \text{Total Cover}$ 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																				
1. <u>Crataegus sp.</u>	<u>10</u>	<u>N</u>	<u>NS</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____	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.																
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
$\frac{10}{5} = \text{Total Cover}$ 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																				
Herb Stratum (Plot size: <u>5 feet</u>)																				
1. <u>Urtica dioica</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																
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. _____	_____	_____	_____																	
$\frac{115}{57.5} = \text{Total Cover}$ 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. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
$\frac{0}{0} = \text{Total Cover}$ 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-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) 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>Quercus rubra</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Crataegus sp.</u>	<u>10</u>	<u>N</u>	<u>NS</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____	Prevalence Index worksheet: <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. _____	_____	_____	_____															
_____	_____	_____	_____															
<u>85</u> = Total Cover 50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u>																		
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																		
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____	_____	_____	_____															
<u> </u> = 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>Pilea pumila</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	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.														
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>																		
Woody Vine Stratum (Plot size: <u>30 feet</u>)																		
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>														
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: UP-12

[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-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) 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>Betula alleghaniensis</u>	30	Y	FAC															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>75</u> = Total Cover 50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>				Prevalence Index worksheet: <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>5</u> = Total Cover 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>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>																		
Herb Stratum (Plot size: <u>5 feet</u>)																		
1. <u>Microstegium vimineum</u>	15	Y	FAC															
2. <u>Parathelypteris noveboracensis</u>	10	Y	FAC															
3. <u>Medeola virginiana</u>	5	N	FAC															
4. <u>Symphytotrichum lateriflorum</u>	5	N	FACW															
5. <u>Polygonatum biflorum</u>	5	N	FACU															
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>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.)				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____														

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. _____	_____	_____	_____	Dominance Test worksheet: 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				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>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>				
Sapling/Shrub Stratum (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				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: <u>16</u> 20% of total cover: <u>6.4</u>				
Herb Stratum (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				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.
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>				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

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 ¹	Loc ²		
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		

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

²Location: 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) (MLRA 147)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)			
<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"/> (MLRA 136, 147)			
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<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) (LRR N,	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,				
<input type="checkbox"/> MLRA 147, 148)	<input type="checkbox"/> MLRA 136)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	³ 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) (MLRA 148)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)				

Restrictive Layer (if observed):	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
Type: <u>Gravel</u>	
Depth (inches): <u>10"</u>	

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. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
7. _____	_____	_____	_____	Prevalence Index worksheet: 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>
_____ = 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. _____	_____	_____	_____	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_____ = 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>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>	
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. _____	_____	_____	_____	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.
_____ = Total Cover				
50% of total cover: <u>69</u> 20% of total cover: <u>27.6</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.) 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.				

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 ¹	Loc ²		
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	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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-W
 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

Wetland Hydrology Indicators: 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 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)		Secondary Indicators (minimum of two required) <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)
Field Observations: 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>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 $\leq 3.0^1$
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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

Wetland Hydrology Indicators: <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)
Field Observations: 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>		
Sapling Stratum (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>		
Shrub Stratum (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>		
Herb Stratum (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>		
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: 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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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 ¹		
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

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

²Location: 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 Soils³:

- ☐ 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)

³Indicators 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

Wetland Hydrology Indicators: 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"/> 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)		Secondary Indicators (minimum of two required) <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)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u><1"</u> 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: WL011-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>				
Sapling Stratum (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>				
Shrub Stratum (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>				
Herb Stratum (Plot size: <u>5ft radius</u>)				
1. <u>Solidago patula</u>	20	OBL	Y	
2. <u>Lycopus uniflorus</u>	20	OBL	Y	
3. <u>Packera aurea</u>	10	FACW	N	
4. <u>Impatiens capensis</u>	10	FACW	N	
5. <u>Microstegium vimineum</u>	5	FAC	N	
6. <u>Galium species</u>	5	NI	N	
7. <u>Carex species</u>	5	NI	N	
8. <u>Leersia oryzoides</u>	20	OBL	Y	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>95</u> = Total Cover				
50% of total cover: <u>47.5</u> 20% of total cover: <u>19</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>				

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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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 ¹	Loc ²	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	

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

²Location: 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 Soils³:

- ☐ 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)

³Indicators 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

Wetland Hydrology Indicators: 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 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)		Secondary Indicators (minimum of two required) <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)	
Field Observations: 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>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>				
Sapling Stratum (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>				
Shrub Stratum (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>				
Herb Stratum (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>				
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>				

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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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

Wetland Hydrology Indicators: 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"/> 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)		Secondary Indicators (minimum of two required) <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)	
Field Observations: 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. _____	_____	_____	_____	
<u>0</u> = 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. _____	_____	_____	_____	
<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>)				
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>)				
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. _____	_____	_____	_____	
<u>50</u> = 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. _____	_____	_____	_____	
<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.

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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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: WP022-V

[illegible]

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

Wetland Hydrology Indicators: 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 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)		Secondary Indicators (minimum of two required) <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)	
Field Observations: 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				
Sapling Stratum (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				
Shrub Stratum (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				
Herb Stratum (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				
Woody Vine Stratum (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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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 ¹	Loc ²	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	

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

²Location: 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 Soils³:

- ☐ 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)

³Indicators 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

Wetland Hydrology Indicators: 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 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)		Secondary Indicators (minimum of two required) <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)
Field Observations: 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. _____	_____	_____	_____	
_____ 0 = Total Cover				
50% of total cover: _____ 0 20% of total cover: _____ 0				
Sapling Stratum (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				
Shrub Stratum (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				
Herb Stratum (Plot size: <u>5ft radius</u>)				
1. <u>Impatiens capensis</u>	25	Y	FACW	
2. <u>Packera aurea</u>	2	N	FACW	
3. <u>Leersia oryzoides</u>	25	Y	OBL	
4. <u>Carex stricta</u>	25	Y	OBL	
5. <u>Carex gynandra</u>	10	N	OBL	
6. <u>Lycopus virginicus</u>	3	N	OBL	
7. <u>Laportea canadensis</u>	10	N	FAC	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ 100 = Total Cover				
50% of total cover: _____ 50 20% of total cover: _____ 20				
Woody Vine Stratum (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: 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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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

Wetland Hydrology Indicators: 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"/> 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)		Secondary Indicators (minimum of two required) <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)
Field Observations: 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>				
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>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>				
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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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 ¹	Loc ²		
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	

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

²Location: 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 Soils³:

- ☐ 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)

³Indicators 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

Wetland Hydrology Indicators: <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)
Field Observations: 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>	30	Y	FACU	Dominance Test worksheet: 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				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 = _____
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>	5	Y	FAC	
2. <u>Nyssa sylvatica</u>	5	Y	FAC	
3. _____				
4. _____				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
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>)				
1. _____				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.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
<u>0</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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>	10	N	FACU	
2. <u>Impatiens capensis</u>	10	N	FACW	
3. <u>Carex stricta</u>	50	Y	OBL	
4. <u>Alliaria petiolata</u>	2	N	FACU	
5. <u>Dryopteris intermedia</u>	5	N	FACU	
6. <u>Aster species</u>	5	N	NI	
7. _____				
8. _____				
9. _____				
10. _____				
<u>82</u> = Total Cover				
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. _____				
6. _____				
<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

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

[illegible]

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

²Location: 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 Soils³:

- ☐ 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)

³Indicators 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: 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

Wetland Hydrology Indicators: <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)
Field Observations: 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>	Dominance Test worksheet: 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				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 = _____
50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>				
Sapling Stratum (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>				
Shrub Stratum (Plot size: <u>15ft radius</u>)				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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ 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>				
Herb Stratum (Plot size: <u>5ft radius</u>)				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.
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>				
Woody Vine Stratum (Plot size: <u>30ft radius</u>)				Hydrophytic Vegetation Present? 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				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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 Soils³:

- ☐ 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)

³Indicators 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

Wetland Hydrology Indicators: 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 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)		Secondary Indicators (minimum of two required) <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)
Field Observations: 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: _____				
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>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>				
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: 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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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: WP031-V

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

[illegible]

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

²Location: 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 Soils³:

- ☐ 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)

³Indicators 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 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

Wetland Hydrology Indicators: 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"/> 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)		Secondary Indicators (minimum of two required) <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)
Field Observations: 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>				

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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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: 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

Wetland Hydrology Indicators: 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"/> 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)		Secondary Indicators (minimum of two required) <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)	
Field Observations: 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. _____	_____	_____	_____	
<u>0</u> = 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. _____	_____	_____	_____	
<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>)				
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>)				
1. <u>Solidago altissima</u>	10	FACU	N	
2. <u>Trifolium repens</u>	25	FACU	Y	
3. <u>Daucus carota</u>	20	UPL	Y	
4. <u>Lamium purpureum</u>	10	NI	N	
5. <u>Lotus tenuis</u>	5	FACU	N	
6. <u>Leucanthemum vulgare</u>	10	UPL	N	
7. <u>Rudbeckia hirta</u>	10	FACU	N	
8. <u>Cirsium vulgare</u>	5	FACU	N	
9. <u>Festuca species</u>	5	NI	N	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>100</u> = 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. _____	_____	_____	_____	
<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: 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 ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of 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

Wetland Hydrology Indicators: <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)	
Field Observations: 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>	20	FAC	Y	Dominance Test worksheet: 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				Prevalence Index worksheet: <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>																		
Sapling Stratum (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>																		
Shrub Stratum (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>																		
Herb Stratum (Plot size: <u>5ft radius</u>)																		
1. <u>Helianthus divaricatus</u>	10	NI	N	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 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Anthriscus sylvestris</u>	10	NI	N															
3. <u>Daucus carota</u>	5	UPL	N															
4. <u>Persicaria pensylvanica</u>	5	FACW	N															
5. <u>Parthenocissus quinquefolia</u>	5	FACU	N															
6. <u>Trifolium repens</u>	20	FACU	Y															
7. <u>Clinopodium vulgare</u>	10	NI	N															
8. <u>Impatiens capensis</u>	10	FACW	N															
9. <u>Taraxacum officinale</u>	10	FACU	N															
10. <u>Solidago altissima</u>	10	FACU	N															
11. <u>Plantago major</u>	5	FACU	N															
<u>100</u> = 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. _____																		
<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

Wetland Hydrology Indicators: 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"/> 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)		Secondary Indicators (minimum of two required) <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)	
Field Observations: 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

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30ft radius</u>)				
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>)				
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>)				
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>)				
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>)				
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: <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)				
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 = <u>3.59</u>				
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 ¹				
<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ 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 <input type="checkbox"/>		No <input checked="" type="checkbox"/>		
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













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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"/>	
ES 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"/>	
ES 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













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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"/>	
ES 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













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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"/>	
ES 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













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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"/>	
ES 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













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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"/>	
ES 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













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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"/>	
ES 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













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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"/>	
ES 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













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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"/>	
ES 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













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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	
ES 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"/>	
ES 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

Project: US 219 Meyersdale		Stream ID: Stream S1	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 6:00	Watershed: Piney Creek	
Lat. 39.794103	Long. -79.034262	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S1-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 48
	50 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse		Local Watershed Erosion
	<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		

Riparian Vegetation (% Composition)	Dominant Type	<input 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			

Instream Features	Average Stream Width	6 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	10 % Riffle
	Average Stream Depth	12 in.	<input type="checkbox"/> Partly shaded		10 % Run	
	High Water Mark	12 in.	<input type="checkbox"/> Shaded		80 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly, spiral snail	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S1A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 6:00	Watershed: Miller Run	
Lat. 39.792226	Long. -79.033678	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S1A-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	50	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse		Local Watershed Erosion
	<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: _____			

Riparian Vegetation (% Composition)	Dominant Type	<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			

Instream Features	Average Stream Width	5 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	0 % Riffle
	Average Stream Depth	<1 in.	<input type="checkbox"/> Partly shaded		100 % Run	
	High Water Mark	4 in.	<input type="checkbox"/> Shaded		0 % Pool	
	Sampling Reach Length	500 ft.	<input checked="" type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Scuds	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S2	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/24/2023	Time: 2:43	Watershed: Casselman River	
Lat. 39.787320	Long. -79.032633	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S2-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 45 _____
	50 % cloud cover	50	Other: _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	10 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	25 % Riffle
	Average Stream Depth	6 in.	<input type="checkbox"/> Partly shaded		50 % Run	
	High Water Mark	12 in.	<input checked="" type="checkbox"/> Shaded		25 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S2A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/24/2023	Time: 11:50	Watershed: Casselman River	
Lat. 39.786703	Long. -79.031184	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S2A-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 40 _____
	<input type="checkbox"/> 100 % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	2 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	90 % Riffle
	Average Stream Depth	1 in.	<input checked="" type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	4 in.	<input type="checkbox"/> Shaded		10 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Midges, leech	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S2B	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/24/2023	Time: 11:30	Watershed: Casselman River	
Lat. 39.787089	Long. -79.031691	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S2B-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 50 _____
	100 <input type="checkbox"/> % cloud cover	<input checked="" type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny		

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	Canopy Cover	Morphology Types
	3-4 ft.	<input type="checkbox"/> Partly open	_____ % Riffle
	Average Stream Depth	<input checked="" type="checkbox"/> Partly shaded	_____ % Run
	0 in.	<input type="checkbox"/> Shaded	_____ % Pool
	High Water Mark	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A
	24 in.		
	Sampling Reach Length		
	50 ft.		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		
None <input checked="" type="checkbox"/>			

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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		
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

Project: US 219 Meyersdale		Stream ID: Stream S2C	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/24/2023	Time: 4:30	Watershed: Casselman River	
Lat. 39.784777	Long. -79.028809	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S2C-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	100	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	10-12 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	80 % Riffle
	Average Stream Depth	2-3 in.	<input type="checkbox"/> Partly shaded		15 % Run	
	High Water Mark	8 in.	<input type="checkbox"/> Shaded		5 % Pool	
	Sampling Reach Length	200 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly, mayfly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S2D	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/24/2023	Time: 5:00	Watershed: Casselman River	
Lat. 39.784097	Long. 79.028308	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S2D-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 43
	20 % cloud cover	100	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	6 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	50 % Riffle
	Average Stream Depth	3 in.	<input checked="" type="checkbox"/> Partly shaded		20 % Run	
	High Water Mark	4 in.	<input type="checkbox"/> Shaded		30 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Caddisfly, mayfly, scuds	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S3	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 9:55	Watershed: Casselman River	
Lat. 39.776558	Long. -79.030001	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S3-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 35 _____
	<input type="checkbox"/> % cloud cover	50	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	4 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	20 % Riffle
	Average Stream Depth	1 in.	<input type="checkbox"/> Partly shaded		50 % Run	
	High Water Mark	3 in.	<input checked="" type="checkbox"/> Shaded		30 % Pool	
	Sampling Reach Length	200 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly, stonefly, scud	

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S4	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 10:30	Watershed: Casselman River	
Lat. 39.780073	Long. -79.031351	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S4-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 45
	<input type="checkbox"/> % cloud cover	50	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>Red maple, black cherry, garlic mustard, beech, jewelweed, dandelion, grass, forsynthia</u>

Instream Features	Average Stream Width	8 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	50 % Riffle
	Average Stream Depth	1-2 in.	<input checked="" type="checkbox"/> Partly shaded		50 % Run	
	High Water Mark	6 in.	<input type="checkbox"/> Shaded		% Pool	
	Sampling Reach Length	150 ft.	<input type="checkbox"/> None		N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>Sowbug, stonefly</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S4A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/25/2023	Time: 10:35	Watershed: Casselman River	
Lat. 39.779501	Long. -79.030098	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S4A-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 40 _____
	30 _____ % cloud cover	50 _____	Other: _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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 _____

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	4 _____ ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	_____ % Riffle
	Average Stream Depth	0 _____ in.	<input checked="" type="checkbox"/> Partly shaded	_____ % Run		
	High Water Mark	6 _____ in.	<input type="checkbox"/> Shaded	_____ % Pool		
	Sampling Reach Length	50 _____ ft.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	_____	

Stream Characterization	Subsystem	Stream Type	Origin
	<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	

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S4B	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/25/2023	Time: 10:45	Watershed: Casselman River	
Lat. 39.779821	Long. -79.029883	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S4B-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 40 _____
	20 _____ % cloud cover	50 _____	Other: _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width 4 _____ ft.	Canopy Cover	Morphology Types
	Average Stream Depth 0 _____ in.	<input checked="" type="checkbox"/> Partly open	_____ % Riffle
	High Water Mark 3 _____ in.	<input type="checkbox"/> Partly shaded	_____ % Run
	Sampling Reach Length 50 _____ ft.	<input type="checkbox"/> Shaded	_____ % Pool
		<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	_____	

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S5	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/24/2023	Time: 11:30	Watershed: Casselman River	
Lat. 39.786124	Long. -79.031478	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S5-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 40 _____
	100 <input type="checkbox"/> % cloud cover	50 <input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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/stormwater
	Local Watershed NPS Pollution: _____	Roadway runoff _____

Riparian Vegetation (% Composition)	Dominant Type
	<input type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: Yellow birch, goldenrod, smooth bedstraw

Instream Features	Average Stream Width	3 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	100 % Riffle
	Average Stream Depth	2 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	6 in.	<input type="checkbox"/> Shaded		0 % Pool	
	Sampling Reach Length	50 ft.	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Caddisfly, mayfly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S7	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 12:00	Watershed: Casselman River	
Lat. 39.770560	Long. -79.030920	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S7-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 45
	<input type="checkbox"/> 20 % cloud cover	<input type="checkbox"/> 50	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 4 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 3 in.	<input type="checkbox"/> Partly open	30 % Riffle
	High Water Mark 4 in.	<input checked="" type="checkbox"/> Partly shaded	60 % Run
	Sampling Reach Length 50 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly, mayfly, scuds, stonefly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S7A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 12:30	Watershed: Casselman River	
Lat. 39.771280	Long. -79.030375	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S7A-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 45
	<input type="checkbox"/> 10 % cloud cover	<input type="checkbox"/> 50	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width 3 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 2 in.	<input type="checkbox"/> Partly open	20 % Riffle
	High Water Mark 4 in.	<input checked="" type="checkbox"/> Partly shaded	70 % Run
	Sampling Reach Length 50 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>Caddisfly, mayfly, scuds, stonefly</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S7B	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 12:30	Watershed: Casselman River	
Lat. 39.771292	Long. -79.030825	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S7B-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 50
	<input type="checkbox"/> % cloud cover	50	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	3 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	<input type="checkbox"/> % Riffle
	Average Stream Depth	1-2 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> % Run		
	High Water Mark	1-2 in.	<input checked="" type="checkbox"/> Shaded	<input type="checkbox"/> % Pool		
	Sampling Reach Length	30 ft.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Scud, aquatic annelid	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S8	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 1:30	Watershed: Casselman River	
Lat. 39.767613	Long. -79.034666	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S8-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 48
	10 % cloud cover	50	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	10 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	80 % Riffle
	Average Stream Depth	2 in.	<input type="checkbox"/> Partly shaded		10 % Run	
	High Water Mark	3 in.	<input checked="" type="checkbox"/> Shaded		10 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Caddisflies, midges	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S9	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 2:15	Watershed: Casselman River	
Lat. 39.765724	Long. -79.034590	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S9-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 50
	<input type="checkbox"/> % cloud cover	50	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	3 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	<input type="checkbox"/> % Riffle
	Average Stream Depth	1 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> 100 % Run		
	High Water Mark	1 in.	<input checked="" type="checkbox"/> Shaded	<input type="checkbox"/> % Pool		
	Sampling Reach Length	30 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S10	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 12:30	Watershed: Casselman River	
Lat. 39.761467	Long. 79.036927	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S10-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 52
	20 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other:
	<input checked="" type="checkbox"/> clear/ sunny		

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	4 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	100 % Riffle
	Average Stream Depth	1 in.	<input type="checkbox"/> Partly shaded			% Run
	High Water Mark	3 in.	<input checked="" type="checkbox"/> Shaded			% Pool
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None			N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Caddisflies, scuds	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S11	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 12:20	Watershed: Casselman River	
Lat. 39.760656	Long. 79.037690	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S11-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 51
	30 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type	<input type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	<input checked="" type="checkbox"/> Trees	Dominant Species: _____		
	black cherry, cucumber magnolia, sweet birch, red oak, witch hazel, intermediate wood fern, green brier			

Instream Features	Average Stream Width	4 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	100 % Riffle
	Average Stream Depth	1 in.	<input type="checkbox"/> Partly shaded			% Run
	High Water Mark	3 in.	<input checked="" type="checkbox"/> Shaded			% Pool
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None			N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S12	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 12:20	Watershed: Casselman River	
Lat. 39.760332	Long. -79.037936	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S12-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 52
	30 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other:
	<input checked="" type="checkbox"/> clear/ sunny		

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	8 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	30 % Riffle
	Average Stream Depth	2 in.	<input type="checkbox"/> Partly shaded		20 % Run	
	High Water Mark	6-8 in.	<input checked="" type="checkbox"/> Shaded		50 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>scuds, midges, caddisfly</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S13	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 04/26/2023	Time: 12:00 pm	Watershed: CASSELMAN RIVER	
Lat. 39.758308	Long. -79.039124	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S13-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	4 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	10 % Riffle
	Average Stream Depth	2 in.	<input type="checkbox"/> Partly shaded		90 % Run	
	High Water Mark	2 in.	<input type="checkbox"/> Shaded		0 % Pool	
	Sampling Reach Length	_____ ft.	<input type="checkbox"/> None			

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Caddis fly pupa	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S15	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 9:13 am	Watershed: CASSELMAN RIVER	
Lat. 39.756822	Long. -79.040612	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S15-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: _____
	20 % cloud cover	50	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	4 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	_____ % Riffle
	Average Stream Depth	1-2 in.	<input type="checkbox"/> Partly shaded		100 % Run	
	High Water Mark	4 in.	<input type="checkbox"/> Shaded		_____ % Pool	
	Sampling Reach Length	100 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Caddis fly, midge larva	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S16	
Township: Summit and Elk Like	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 10:00 am	Watershed: CASSELMAN RIVER	
Lat. 39.757815	Long. -79.040290	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S16-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 48
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	10 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	20 % Riffle
	Average Stream Depth	4 in.	<input checked="" type="checkbox"/> Partly shaded		30 % Run	
	High Water Mark	8 in.	<input type="checkbox"/> Shaded		50 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	midges, caddis fly pupa, stone fly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S16A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 10:30 am	Watershed: CASSELMAN RIVER	
Lat. 39.756928	Long. -79.039132	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S16A-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 50
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	Canopy Cover	Morphology Types
	3-4 ft.	<input checked="" type="checkbox"/> Partly open	40 % Riffle
	Average Stream Depth	<input type="checkbox"/> Partly shaded	60 % Run
	2 in.	<input type="checkbox"/> Shaded	% Pool
	High Water Mark	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	6 in.		
	Sampling Reach Length		
	300 ft.		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>Caddis fly pupa, midge larva</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S16B	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 9:20 am	Watershed: CASSELMAN RIVER	
Lat. 39.756370	Long. -79.039542	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S16B-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 45
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 5 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 3 in.	<input type="checkbox"/> Partly open	10 % Riffle
	High Water Mark 5 in.	<input type="checkbox"/> Partly shaded	30 % Run
	Sampling Reach Length 50 ft.	<input checked="" type="checkbox"/> Shaded	60 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Caddis fly pupa, mayfly larva	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S16C	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 10:45 am	Watershed: CASSELMAN RIVER	
Lat. 39.756994	Long. -79.039896	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S16C-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 48
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 4 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 3 in.	<input type="checkbox"/> Partly open	40 % Riffle
	High Water Mark 6 in.	<input type="checkbox"/> Partly shaded	10 % Run
	Sampling Reach Length 50 ft.	<input checked="" type="checkbox"/> Shaded	50 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	May fly larva, midge larva	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S16D	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/26/2023	Time: 10:20 am	Watershed: CASSELMAN RIVER	
Lat. 39.757134	Long. -79.039852	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S16D-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 48
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 2 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 1 in.	<input type="checkbox"/> Partly open	80 % Riffle
	High Water Mark in.	<input type="checkbox"/> Partly shaded	5 % Run
	Sampling Reach Length ft.	<input checked="" type="checkbox"/> Shaded	15 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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)	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

Project: US 219 Meyersdale		Stream ID: Stream S16E	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 11:30 am	Watershed: CASSELMAN RIVER	
Lat. 39.756427	Long. -79.039026	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S16E-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 4 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 4 in.	<input type="checkbox"/> Partly open	20 % Riffle
	High Water Mark 10 in.	<input type="checkbox"/> Partly shaded	70 % Run
	Sampling Reach Length 30 ft.	<input checked="" type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Caddisfly pupa, stone fly larva	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S17	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 9:00am	Watershed: CASSELMAN RIVER	
Lat. 39.755706	Long. -79.039831	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S17-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 45
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse		Local Watershed Erosion
	<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> Commercial	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Field/Pasture	<input type="checkbox"/> Industrial	<input 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: none		

Riparian Vegetation (% Composition)	Dominant Type	<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			

Instream Features	Average Stream Width	6 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	100 % Riffle
	Average Stream Depth	1 in.	<input checked="" type="checkbox"/> Partly shaded			% Run
	High Water Mark	3 in.	<input type="checkbox"/> Shaded			% Pool
	Sampling Reach Length	20 ft.	<input type="checkbox"/> None			N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	caddis fly pupa, mayfly, midges	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S18	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 2:30 pm	Watershed: PINEY CREEK	
Lat. 39.752627	Long. -79.041675	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S18-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 51
	<input type="checkbox"/> 50 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: gravel from roadway runoff	

Riparian Vegetation (% Composition)	Dominant Type
	<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.

Instream Features	Average Stream Width 4 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 2 in.	<input type="checkbox"/> Partly open	60 % Riffle
	High Water Mark 10 in.	<input checked="" type="checkbox"/> Partly shaded	10 % Run
	Sampling Reach Length 50 ft.	<input type="checkbox"/> Shaded	30 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Mayflies, caddis fly pupa	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S19	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 5:00 pm	Watershed: PINEY CREEK	
Lat. 39.749048	Long. -79.044003	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S19-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60
	<input type="checkbox"/> 80 % cloud cover	<input type="checkbox"/> 50	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	5 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	50 % Riffle
	Average Stream Depth	1-2 in.	<input type="checkbox"/> Partly shaded		50 % Run	
	High Water Mark	4 in.	<input type="checkbox"/> Shaded		% Pool	
	Sampling Reach Length	30 ft.	<input type="checkbox"/> None		N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	<u>caddis fly pupa, scuds</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S20	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/26/2023	Time: 4:50 pm	Watershed: PINEY CREEK	
Lat. 39.748279	Long. -79.043275	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S20-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 54
	<input type="checkbox"/> 60 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type	<input checked="" type="checkbox"/> Trees	<input type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	Red maple, sweet birch, cucumber magnolia, stripped maple, green brier, wood fern			

Instream Features	Average Stream Width	5 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	100 % Riffle
	Average Stream Depth	0 in.	<input checked="" type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	2 in.	<input type="checkbox"/> Shaded		0 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S21	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 5:00 pm	Watershed: PINEY CREEK	
Lat. 39.748553	Long. -79.044508	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S21-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 54
	<input type="checkbox"/> 80 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 4 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 2 in.	<input checked="" type="checkbox"/> Partly open	50 % Riffle
	High Water Mark 4 in.	<input type="checkbox"/> Partly shaded	10 % Run
	Sampling Reach Length 50 ft.	<input type="checkbox"/> Shaded	40 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	midges, caddis fly pupa	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S23	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/26/2023	Time: 5:30 pm	Watershed: PINEY CREEK	
Lat. 39.745408	Long. -79.048337	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S23-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60
	<input type="checkbox"/> % cloud cover	30	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	3 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	100 % Riffle
	Average Stream Depth	0-1 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	6 in.	<input type="checkbox"/> Shaded		0 % Pool	
	Sampling Reach Length	20 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S24	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 4:15 pm	Watershed: PINEY CREEK	
Lat. 39.743917	Long. -79.047770	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S24-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	30 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	1 _____ ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	50 _____ % Riffle
	Average Stream Depth	1 _____ in.	<input type="checkbox"/> Partly shaded		30 _____ % Run	
	High Water Mark	2 _____ in.	<input type="checkbox"/> Shaded		20 _____ % Pool	
	Sampling Reach Length	30 _____ ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>caddis fly pupa, midges</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S25	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/26/2023	Time: 10:30 am	Watershed: PINEY CREEK	
Lat. 39.743931	Long. -79.047102	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S25-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width 2 ft.	Canopy Cover <input checked="" type="checkbox"/> Partly open	Morphology Types 30 % Riffle
	Average Stream Depth 2 in.	<input type="checkbox"/> Partly shaded	70 % Run
	High Water Mark 2 in.	<input type="checkbox"/> Shaded	% Pool
	Sampling Reach Length 30 ft.	<input type="checkbox"/> None	N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>scuds, caddis fly pupa</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S26	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 3:20 pm	Watershed: PINEY CREEK	
Lat. 39.743617	Long. -79.049226	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S26-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 55 _____
	50 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: dirt road
	Local Watershed NPS Pollution: sedimentation from road	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	4 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	70 % Riffle
	Average Stream Depth	2 in.	<input type="checkbox"/> Partly shaded		20 % Run	
	High Water Mark	5 in.	<input checked="" type="checkbox"/> Shaded		10 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Caddis fly pupa, may fly, midges	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S27	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 3:00 pm	Watershed: PINEY CREEK	
Lat. 39.743954	Long. -79.048943	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S27-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 53
	<input type="checkbox"/> 50 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 5 ft.	Canopy Cover <input checked="" type="checkbox"/> Partly open	Morphology Types 80 % Riffle
	Average Stream Depth 1 in.	<input type="checkbox"/> Partly shaded	10 % Run
	High Water Mark 3 in.	<input type="checkbox"/> Shaded	10 % Pool
	Sampling Reach Length 50 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	midges caddis, fly pupa, may fly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S28	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 3:40 pm	Watershed: PINEY CREEK	
Lat. 39.744852	Long. -79.047434	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S28-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 52
	<input type="checkbox"/> 80 % cloud cover	<input type="checkbox"/> 50	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	Canopy Cover	Morphology Types
	1 ft.	<input type="checkbox"/> Partly open	10 % Riffle
	Average Stream Depth	<input checked="" type="checkbox"/> Partly shaded	90 % Run
	1-2 in.	<input type="checkbox"/> Shaded	0 % Pool
	High Water Mark	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	3 in.		
	Sampling Reach Length		
	30 ft.		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>Stone fly, caddisfly pupa</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S29	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 3:30 pm	Watershed: PINEY CREEK	
Lat. 39.740926	Long. -79.051107	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S29-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 55 _____
	<input type="checkbox"/> 70 % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 8 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 1 in.	<input type="checkbox"/> Partly open	70 % Riffle
	High Water Mark 4 in.	<input checked="" type="checkbox"/> Partly shaded	20 % Run
	Sampling Reach Length 50 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Stone fly, caddis fly pupa	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S29A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 3:50 pm	Watershed: PINEY RUN	
Lat. 39.740953	Long. -79.051075	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S29A-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 55 _____
	<input type="checkbox"/> 30 % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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.

Instream Features	Average Stream Width 2 ft.	Canopy Cover <input checked="" type="checkbox"/> Partly open	Morphology Types 100 % Riffle
	Average Stream Depth 1 in.	<input type="checkbox"/> Partly shaded	_____ % Run
	High Water Mark 4 in.	<input type="checkbox"/> Shaded	_____ % Pool
	Sampling Reach Length 20 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	caddis fly pupa, scuds	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S30	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 4:00	Watershed: Piney Creek	
Lat. 39.740687	Long. -79.051151	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S30-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 55
	<input type="checkbox"/> 40 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width 8 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 2 in.	<input type="checkbox"/> Partly open	80 % Riffle
	High Water Mark 4 in.	<input checked="" type="checkbox"/> Partly shaded	10 % Run
	Sampling Reach Length 50 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>Caddisfly, mayfly</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S31	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 5:10	Watershed: Piney Creek	
Lat. 39.733640	Long. -79.055473	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S31-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 55 _____
	<input type="checkbox"/> 80 % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type	<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				

Instream Features	Average Stream Width	2-3 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	70 % Riffle
	Average Stream Depth	1 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> Shaded	30 % Run	
	High Water Mark	3 in.	<input type="checkbox"/> Shaded	<input type="checkbox"/> None	0 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Stonefly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S32	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 5:15	Watershed: Piney Creek	
Lat. 39.737939	Long. -79.056432	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S32-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 50
	50 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: siltation and roadway runoff	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 60 ft.	Canopy Cover <input checked="" type="checkbox"/> Partly open	Morphology Types 10 % Riffle
	Average Stream Depth 12 in.	<input type="checkbox"/> Partly shaded	70 % Run
	High Water Mark 24 in.	<input type="checkbox"/> Shaded	20 % Pool
	Sampling Reach Length 50 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Stonefly, mayfly, caddisfly, midges, water penny, trout	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S33	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 4:40	Watershed: Piney Creek	
Lat. 39.732664	Long. -79.056049	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S33-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	50 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	6-8 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	0 % Riffle
	Average Stream Depth	2-6 in.	<input type="checkbox"/> Partly shaded		70 % Run	
	High Water Mark	3 in.	<input type="checkbox"/> Shaded		30 % Pool	
	Sampling Reach Length	100 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	Midge, caddisfly, wood frogs	

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S34	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 5:00	Watershed: Piney Creek	
Lat. 39.734453	Long. -79.057502	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S34-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 50 _____
	50 % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type	<input checked="" type="checkbox"/> Trees	<input type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	Eastern hemlock			

Instream Features	Average Stream Width	6-8 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	80 % Riffle
	Average Stream Depth	1 in.	<input type="checkbox"/> Partly shaded		10 % Run	
	High Water Mark	3 in.	<input checked="" type="checkbox"/> Shaded		10 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Midge, caddisfly, mayfly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S36	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/25/2023	Time: 4:55	Watershed: Piney Creek	
Lat. 39.731784	Long. -79.055734	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S36-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	50	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	1 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	_____ % Riffle
	Average Stream Depth	0 in.	<input type="checkbox"/> Partly shaded	_____ % Run		
	High Water Mark	1 in.	<input type="checkbox"/> Shaded	_____ % Pool		
	Sampling Reach Length	20 ft.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S38	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 8:40	Watershed: Meadow Run	
Lat. 39.726409	Long. -79.066728	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S38-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 45 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse		Local Watershed Erosion
	<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 type="checkbox"/> Roadway:	<input type="checkbox"/> Heavy
	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other: old strip mine	
	Local Watershed NPS Pollution:	Former strip mine	

Riparian Vegetation (% Composition)	Dominant Type	<input checked="" type="checkbox"/> Trees	<input checked="" type="checkbox"/> Shrubs	<input type="checkbox"/> Grasses	<input type="checkbox"/> Herbaceous
	Dominant Species:	Sweet birch, Eastern hemlock, red oak, serviceberry, mountain laurel, skunk cabbage, swamp dewberry, sedges			

Instream Features	Average Stream Width	5 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	50 % Riffle
	Average Stream Depth	3 in.	<input checked="" type="checkbox"/> Partly shaded		30 % Run	
	High Water Mark	5 in.	<input type="checkbox"/> Shaded		20 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Caddisfly, midge, stonefly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S38A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/27/2023	Time: 9:20	Watershed: Meadow Run	
Lat. 39.726431	Long. -79.066680	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S38A-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 46 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<input checked="" 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 checked="" type="checkbox"/> Other: old strip mine
	Local Watershed NPS Pollution: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	3 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	20 % Riffle
	Average Stream Depth	0-2 in.	<input checked="" type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	3 in.	<input type="checkbox"/> Shaded		80 % Pool	
	Sampling Reach Length	20 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Midge, mosquito	

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S38B	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 9:20	Watershed: Meadow Run	
Lat. 39.726314	Long. -79.066798	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S38B-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 46
	<input type="checkbox"/> % cloud cover	50	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	Canopy Cover	Morphology Types
	2 ft.	<input checked="" type="checkbox"/> Partly open	0 % Riffle
	Average Stream Depth	<input type="checkbox"/> Partly shaded	100 % Run
	3 in.	<input type="checkbox"/> Shaded	0 % Pool
	High Water Mark	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	Sampling Reach Length		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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?)

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S38C	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 9:00	Watershed: Meadow Run	
Lat. 39.727364	Long. -79.066961	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S38C-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 46
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse		Local Watershed Erosion
	<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		

Riparian Vegetation (% Composition)	Dominant Type			
	<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			

Instream Features	Average Stream Width	4 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	50 % Riffle
	Average Stream Depth	0-2 in.	<input checked="" type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	6 in.	<input type="checkbox"/> Shaded		50 % Pool	
	Sampling Reach Length	30 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"/> 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 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

Project: US 219 Meyersdale		Stream ID: Stream S39	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 10:30	Watershed: Meadow Run	
Lat. 39.726509	Long. -79.075156	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S39-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 51
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 20 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 5 in.	<input type="checkbox"/> Partly open	20 % Riffle
	High Water Mark 12 in.	<input checked="" type="checkbox"/> Partly shaded	60 % Run
	Sampling Reach Length 50 ft.	<input type="checkbox"/> Shaded	20 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	caddisfly, midge, mayfly, dace, chubs	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S39	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/26/2023	Time: 5:40	Watershed: Meadow Run	
Lat. 39.726509	Long. -79.075156	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S39-DP2			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 55 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	20-25 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	40 % Riffle
	Average Stream Depth	6 in.	<input type="checkbox"/> Partly shaded		50 % Run	
	High Water Mark	10 in.	<input checked="" type="checkbox"/> Shaded		10 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	caddifly, mayfly, stonefly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S39A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/27/2023	Time: 11:00	Watershed: Meadow Run	
Lat. 39.726509	Long. -79.075156	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S39A-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	Canopy Cover	Morphology Types
	2-3 ft.	<input type="checkbox"/> Partly open	_____ % Riffle
	Average Stream Depth	<input checked="" type="checkbox"/> Partly shaded	_____ % Run
	0 in.	<input type="checkbox"/> Shaded	_____ % Pool
	High Water Mark	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A
	5 in.		
	Sampling Reach Length		
	50 ft.		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		
None <input checked="" type="checkbox"/>			

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S39C	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 11:00	Watershed: Meadow Run	
Lat. 39.729050	Long. -79.076333	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S39C-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 65
	<input type="checkbox"/> % cloud cover	50	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	6 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	0 % Riffle
	Average Stream Depth	8 in.	<input checked="" type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	8 in.	<input type="checkbox"/> Shaded		100 % Pool	
	Sampling Reach Length	30 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Midges, water boatmen, tadpoles, fish	

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S39D	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 11:10	Watershed: Meadow Run	
Lat. 39.729109	Long. -79.076448	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S39D-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 65 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>Eastern hemlock, black cherry, sweet birch, rhododendron, jewelweed, multiflora rose, sedge</u>

Instream Features	Average Stream Width 10 ft.	Canopy Cover <input type="checkbox"/> Partly open	Morphology Types 30 % Riffle
	Average Stream Depth 2 in.	<input type="checkbox"/> Partly shaded	0 % Run
	High Water Mark 5 in.	<input checked="" type="checkbox"/> Shaded	70 % Pool
	Sampling Reach Length 50 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	<u>Midges, salamanders</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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: 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

Project: US 219 Meyersdale		Stream ID: Stream S41	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/15/2023	Time: 10:20	Watershed: Piney Creek	
Lat. 39.745169	Long. -79.055551	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S41-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 15 ft.	Canopy Cover <input checked="" type="checkbox"/> Partly open	Morphology Types 100 % Riffle
	Average Stream Depth 4 in.	<input type="checkbox"/> Partly shaded	0 % Run
	High Water Mark 18 in.	<input type="checkbox"/> Shaded	0 % Pool
	Sampling Reach Length 50 ft.	<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	caddisfly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S42	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/15/2023	Time: 10:30	Watershed: Piney Creek	
Lat. 39.744487	Long. -79.055805	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S42-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 8 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 2 in.	<input type="checkbox"/> Partly open	60 % Riffle
	High Water Mark 4 in.	<input type="checkbox"/> Partly shaded	30 % Run
	Sampling Reach Length 50 ft.	<input checked="" type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	caddisfly, midge	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"/> Globs	<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

Project: US 219 Meyersdale		Stream ID: Stream S43 and S43A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/15/2023	Time: 9:30	Watershed: Piney Creek	
Lat. 39.744002	Long. -79.054207	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S43-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 55 _____
	75 % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	2 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	30 % Riffle
	Average Stream Depth	2 in.	<input type="checkbox"/> Partly shaded		60 % Run	
	High Water Mark	3 in.	<input checked="" type="checkbox"/> Shaded		10 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	caddisfly, midge, mayfly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S44	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/15/2023	Time: 9:20	Watershed: Piney Creek	
Lat. 39.744154	Long. -79.054052	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S44-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type	<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				

Instream Features	Average Stream Width	6 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	85 % Riffle
	Average Stream Depth	2 in.	<input type="checkbox"/> Partly shaded		10 % Run	
	High Water Mark	3 in.	<input type="checkbox"/> Shaded		5 % Pool	
	Sampling Reach Length	60 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	caddisfly, midge, mayfly, frogs, salamanders	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S45 and S45A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/15/2023	Time: 10:45	Watershed: Piney Creek	
Lat. 39.743754	Long. -79.056210	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S45-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	4 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	50 % Riffle
	Average Stream Depth	2 in.	<input checked="" type="checkbox"/> Partly shaded		40 % Run	
	High Water Mark	3 in.	<input type="checkbox"/> Shaded		10 % Pool	
	Sampling Reach Length	20 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	caddisfly, sowbugs	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S46 and S46A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/15/2023	Time: 2:50	Watershed: Piney Creek	
Lat. 39.744986	Long. -79.062204	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S46-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 71
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type	<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			

Instream Features	Average Stream Width	3 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	0 % Riffle
	Average Stream Depth	0 in.	<input type="checkbox"/> Partly shaded		100 % Run	
	High Water Mark	6 in.	<input type="checkbox"/> Shaded		0 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	Stonefly, caddisfly, mayfly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S46B	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 5/15/2023	Time: 2:40	Watershed: Piney Creek	
Lat. 39.745404	Long. -79.061928	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S46B			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 70
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	Canopy Cover	Morphology Types
	2 ft.	<input type="checkbox"/> Partly open	<input type="checkbox"/> % Riffle
	Average Stream Depth	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> % Run
	0 in.	<input checked="" type="checkbox"/> Shaded	<input type="checkbox"/> % Pool
	High Water Mark	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A
	2 in.		
	20 ft.		
	Sampling Reach Length		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S47	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 5/15/2023	Time: 3:20	Watershed: Piney Creek	
Lat. 39.743681	Long. -79.066122	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S47-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 80 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: Precipitation
	Local Watershed NPS Pollution: _____	<input type="checkbox"/> None <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Heavy

Riparian Vegetation (% Composition)	Dominant Type
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>sugar maple, black cherry, red oak, sweet birch, cucumber magnolia, multiflora rose, Japanese barberry</u>

Instream Features	Average Stream Width	Canopy Cover	Morphology Types
	4 ft.	<input type="checkbox"/> Partly open	_____ % Riffle
	Average Stream Depth	<input type="checkbox"/> Partly shaded	_____ % Run
	0 in.	<input checked="" type="checkbox"/> Shaded	_____ % Pool
	High Water Mark	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A
	6-24 in.		
	Sampling Reach Length		
	N/A ft.		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		
None <input checked="" type="checkbox"/>			

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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:
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

Project: US 219 Meyersdale		Stream ID: Stream S48	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/15/2023	Time: 4:50	Watershed: Meadow Run	
Lat. 39.741142	Long. -79.074579	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S48-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 71
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 4 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 2 in.	<input type="checkbox"/> Partly open	60 % Riffle
	High Water Mark 6 in.	<input checked="" type="checkbox"/> Partly shaded	30 % Run
	Sampling Reach Length 50 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	caddisfly, maybly	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S50 and Stream S50A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/15/2023	Time: 5:00	Watershed: Meadow Run	
Lat. 39.739550	Long. -79.076955	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S50-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 80 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width 4 _____ ft.	Canopy Cover	Morphology Types
	Average Stream Depth 2 _____ in.	<input checked="" type="checkbox"/> Partly open	10 _____ % Riffle
	High Water Mark 2 _____ in.	<input type="checkbox"/> Partly shaded	90 _____ % Run
	Sampling Reach Length 50 _____ ft.	<input type="checkbox"/> Shaded	0 _____ % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	<u>caddisfly, scud, salamander</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S51	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 12:50	Watershed: Meadow Run	
Lat. 39.733230	Long. -79.076399	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S51-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 58
	<input type="checkbox"/> 20 % cloud cover	<input type="checkbox"/> 30	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	Canopy Cover	Morphology Types
	6 ft.	<input type="checkbox"/> Partly open	80 % Riffle
	Average Stream Depth	<input type="checkbox"/> Partly shaded	10 % Run
	1 in.	<input checked="" type="checkbox"/> Shaded	10 % Pool
	High Water Mark	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	4 in.		
	50 ft.		
	Sampling Reach Length		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	scuds, caddisfly, water beetles	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S51A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/27/2023	Time: 12:50	Watershed: Meadow Run	
Lat. 39.733849	Long. -79.076294	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S51A-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 2.5 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 0 in.	<input checked="" type="checkbox"/> Partly open	_____ % Riffle
	High Water Mark 2 in.	<input type="checkbox"/> Partly shaded	_____ % Run
	Sampling Reach Length 30 ft.	<input type="checkbox"/> Shaded	_____ % Pool
		<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		
None <input checked="" type="checkbox"/>			

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S52	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 1:00	Watershed: Meadow Run	
Lat. 39.733116	Long. -79.076461	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S52-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 58
	<input type="checkbox"/> 20 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Dominant Species: red oak, black cherry, cucumber magnolia, American hophornbeam, aster species, viola species

Instream Features	Average Stream Width	2 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	100 % Riffle
	Average Stream Depth	1 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	4 in.	<input checked="" type="checkbox"/> Shaded		0 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	adult midges, water beetles	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S53	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 11:40	Watershed: Meadow Run	
Lat. 39.731872	Long. -79.076618	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S53-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 56
	<input type="checkbox"/> 20 % cloud cover	<input type="checkbox"/> 40	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	8 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	50 % Riffle
	Average Stream Depth	1 in.	<input checked="" type="checkbox"/> Partly shaded		20 % Run	
	High Water Mark	6 in.	<input type="checkbox"/> Shaded		30 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	caddisfly, stonefly, midge adults	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S53A	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 12:30	Watershed: Meadow Run	
Lat. 39.732866	Long. -79.075053	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S53A-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 58
	<input type="checkbox"/> 20 % cloud cover	<input type="checkbox"/> 40	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>eastern hemlock, red oak, black cherry, pine, American hornbeam, golden ragwort</u>

Instream Features	Average Stream Width	Canopy Cover	Morphology Types
	8 ft.	<input checked="" type="checkbox"/> Partly open	70 % Riffle
	Average Stream Depth	<input type="checkbox"/> Partly shaded	15 % Run
	2 in.	<input type="checkbox"/> Shaded	15 % Pool
	High Water Mark	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	4 in.		
	Sampling Reach Length		
	100 ft.		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>caddisfly, mayfly</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S54	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 10:50	Watershed: Meadow Run	
Lat. 39.729256	Long. -79.076594	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S54-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 52
	<input type="checkbox"/> 10 % cloud cover	<input type="checkbox"/> 40	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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.

Instream Features	Average Stream Width	10 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	50 % Riffle
	Average Stream Depth	1 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	6 in.	<input checked="" type="checkbox"/> Shaded		50 % Pool	
	Sampling Reach Length	100 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	frog, midge adults	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S55	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 4/27/2023	Time: 10:30	Watershed: Meadow Run	
Lat. 39.730282	Long. -79.077640	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S55-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 55
	<input type="checkbox"/> % cloud cover	50	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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:	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	2.5 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	<input type="checkbox"/> % Riffle
	Average Stream Depth	0 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> % Run		
	High Water Mark	3.5 in.	<input type="checkbox"/> Shaded	<input type="checkbox"/> % Pool		
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S56	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/27/2023	Time: 10:15	Watershed: Meadow Run	
Lat. 39.729700	Long. -79.077662	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S56-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 51
	<input type="checkbox"/> 10 % cloud cover	<input type="checkbox"/> 40	Other:
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: Access road
	Local Watershed NPS Pollution: acid mine drainage	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 6 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 2 in.	<input type="checkbox"/> Partly open	40 % Riffle
	High Water Mark 5 in.	<input checked="" type="checkbox"/> Partly shaded	50 % Run
	Sampling Reach Length 60 ft.	<input type="checkbox"/> Shaded	10 % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	scuds	

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S57	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 9:00	Watershed: Casselman River	
Lat. 39.775793	Long. -79.032469	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S57-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 40 _____
	<input type="checkbox"/> % cloud cover	50	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	2.5 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	100 % Riffle
	Average Stream Depth	2 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	3 in.	<input checked="" type="checkbox"/> Shaded		0 % Pool	
	Sampling Reach Length	60 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	stonefly nymph, scud, crayfish	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S58	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 4/25/2023	Time: 10:00	Watershed: Casselman River	
Lat. 39.757717	Long. -79.041785	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input checked="" type="checkbox"/> N.Davis <input type="checkbox"/>	
GPS Point Name: S58-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 40 _____
	30 _____ % cloud cover	50 _____	Other: _____
	<input type="checkbox"/> clear/ sunny	<input type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	10 _____ ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	20 _____ % Riffle
	Average Stream Depth	1.5 _____ in.	<input type="checkbox"/> Partly shaded		80 _____ % Run	
	High Water Mark	1 _____ in.	<input type="checkbox"/> Shaded		0 _____ % Pool	
	Sampling Reach Length	50 _____ ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	caddisfly, sowbug	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S59	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/16/2023	Time: 11:30	Watershed: Meadow Run	
Lat. 39.723276	Long. -79.076616	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S59-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	40 <input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	<input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy

Riparian Vegetation (% Composition)	Dominant Type
	<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: <u>sugar maple, sweet birch, green ash, multiflora rose, jewelweed, sweet vernal grass</u>

Instream Features	Average Stream Width	3 ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	80 % Riffle
	Average Stream Depth	0 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> Shaded	0 % Run	
	High Water Mark	5 in.	<input type="checkbox"/> Shaded	<input type="checkbox"/> None	20 % Pool	
	Sampling Reach Length	50 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>crayfish burrows</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S60	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/16/2023	Time: 1:40	Watershed: Miller Run	
Lat. 39.796513	Long. -79.037050	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S60-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 69
	<input type="checkbox"/> 90 % cloud cover	<input type="checkbox"/>	Other:
	<input type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width	0.5 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	80 % Riffle
	Average Stream Depth	1 in.	<input type="checkbox"/> Partly shaded		0 % Run	
	High Water Mark	5 in.	<input type="checkbox"/> Shaded		20 % Pool	
	Sampling Reach Length	20 ft.	<input checked="" type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	leeches	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S61	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/16/2023	Time: 2:30	Watershed: Miller Run	
Lat. 39.798571	Long. -79.036477	Investigators: C.Sullivan <input type="checkbox"/> C.Frey <input checked="" type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S61-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 68
	<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/>	Other:
	100 <input type="checkbox"/> % cloud cover	<input checked="" type="checkbox"/>	
	<input type="checkbox"/> clear/ sunny		

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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	

Riparian Vegetation (% Composition)	Dominant Type
	<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

Instream Features	Average Stream Width 5 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 2 in.	<input type="checkbox"/> Partly open	60 % Riffle
	High Water Mark 10 in.	<input type="checkbox"/> Partly shaded	10 % Run
	Sampling Reach Length 50 ft.	<input type="checkbox"/> Shaded	30 % Pool
		<input checked="" type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input checked="" type="checkbox"/> Attached Algae	caddisfly, midges	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S63	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 5/19/2023	Time: 11:30	Watershed: Casselman River	
Lat. 39.789998	Long. -79.035289	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S63-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width <u>2</u> ft.	Canopy Cover	Morphology Types
	Average Stream Depth <u>1</u> in.	<input type="checkbox"/> Partly open	<u>40</u> % Riffle
	High Water Mark <u>2</u> in.	<input checked="" type="checkbox"/> Partly shaded	<u>40</u> % Run
	Sampling Reach Length <u>60</u> ft.	<input type="checkbox"/> Shaded	<u>20</u> % Pool
		<input type="checkbox"/> None	<input type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>crayfish, nematode</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S64	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/19/2023	Time: 12:00	Watershed: Casselman River	
Lat. 39.788667	Long. -79.035300	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S64-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 80 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	1.5 ft.	Canopy Cover	<input type="checkbox"/> Partly open	Morphology Types	0 % Riffle
	Average Stream Depth	<1 in.	<input checked="" type="checkbox"/> Partly shaded		100 % Run	
	High Water Mark	4 in.	<input type="checkbox"/> Shaded		0 % Pool	
	Sampling Reach Length	100 ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>crayfish burrows, mayfly, midges</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S65	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/31/2023	Time: 8:00	Watershed: Casselman River	
Lat. 39.786414	Long. -79.034293	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S65-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	4 _____ ft.	Canopy Cover	<input checked="" type="checkbox"/> Partly open	Morphology Types	0 _____ % Riffle
	Average Stream Depth	<1 _____ in.	<input type="checkbox"/> Partly shaded		100 _____ % Run	
	High Water Mark	3 _____ in.	<input type="checkbox"/> Shaded		0 _____ % Pool	
	Sampling Reach Length	10 _____ ft.	<input type="checkbox"/> None		<input type="checkbox"/> N/A	

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>caddisfly, leeches</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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)	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

Project: US 219 Meyersdale		Stream ID: Stream S66	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	
Date: 5/31/2023	Time: 10:25	Watershed: Piney Creek	
Lat. 39.732688	Long. -79.058045	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S66-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 65
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other:
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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: _____	

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width	Canopy Cover	Morphology Types
	2 ft.	<input type="checkbox"/> Partly open	20 % Riffle
	Average Stream Depth	<input checked="" type="checkbox"/> Partly shaded	80 % Run
	<1 in.	<input type="checkbox"/> Shaded	0 % Pool
	High Water Mark	<input type="checkbox"/> None	<input type="checkbox"/> N/A
	5 in.		
	70 ft.		

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae	<u>caddis fly, scuds, mayfly</u>	

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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

Project: US 219 Meyersdale		Stream ID: Stream S67	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 5-31-2023	Time: 4:50	Watershed: Meadow Run	
Lat. 39.727925	Long. -79.062785	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S67-DP			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 80 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<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>

Instream Features	Average Stream Width 4 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 0 in.	<input checked="" type="checkbox"/> Partly open	_____ % Riffle
	High Water Mark 4 in.	<input type="checkbox"/> Partly shaded	_____ % Run
	Sampling Reach Length 60 ft.	<input type="checkbox"/> Shaded	_____ % Pool
		<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		

Stream Characterization	Subsystem	Stream Type	Origin
	<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:

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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"	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

Project: US 219 Meyersdale		Stream ID: Stream S68	
Township: Summit and Elk Lick	County: Somerset	Classification: Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	
Date: 6/2/2023	Time: 8:40	Watershed: Piney Creek	
Lat. 39.731749	Long. -79.059231	Investigators: C.Sullivan <input checked="" type="checkbox"/> C.Frey <input type="checkbox"/> S.Comerford <input type="checkbox"/> N.Davis <input checked="" type="checkbox"/>	
GPS Point Name: S68-DP1			

Weather Conditions	Now	Past 24 hr	Heavy rain in the last 7 days?
	<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"/>	Air Temp: 60 _____
	<input type="checkbox"/> % cloud cover	<input type="checkbox"/>	Other: _____
	<input checked="" type="checkbox"/> clear/ sunny	<input checked="" type="checkbox"/>	

Watershed Features	Predominant Surrounding Landuse	Local Watershed Erosion
	<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

Riparian Vegetation (% Composition)	Dominant Type
	<input type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Dominant Species: witch hazel, sweet birch, black raspberry, red oak, red maple, sugar maple, wood fern

Instream Features	Average Stream Width 2.5 ft.	Canopy Cover	Morphology Types
	Average Stream Depth 0 in.	<input type="checkbox"/> Partly open	<input type="checkbox"/> % Riffle
	High Water Mark 4 in.	<input type="checkbox"/> Partly shaded	<input type="checkbox"/> % Run
	Sampling Reach Length 40 ft.	<input checked="" type="checkbox"/> Shaded	<input type="checkbox"/> % Pool
		<input type="checkbox"/> None	<input checked="" type="checkbox"/> N/A

Aquatic Vegetation, Biota & Habitat	Aquatic Vegetation	Aquatic Biota	Habitat
	<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	Taxa:	
	<input type="checkbox"/> Attached Algae		
None <input checked="" type="checkbox"/>			

Stream Characterization	Subsystem	Stream Type	Origin
	<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

Water Quality	Water Odors	Water Surface Oils	Turbidity (if not measured)
	<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					
6. Channel Alteration 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 20	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
7. Frequency of Riffles (or bends) 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
8. Bank Stability (score each bank) 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			
9. Vegetative Protection (score each bank) 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			
10. Riparian Vegetative Zone Width (score each bank riparian zone) 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					
6. Channel Alteration 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 18	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
7. Frequency of Riffles (or bends) 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
8. Bank Stability (score each bank) Note: determine left or right side by facing downstream. SCORE <u>4</u> (LB) SCORE <u>4</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			
9. Vegetative Protection (score each bank) 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			
10. Riparian Vegetative Zone Width (score each bank riparian zone) 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

Parameters to be evaluated in sampling reach	Habitat Parameter	Condition Category			
		Optimal	Suboptimal	Marginal	Poor
	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					
6. Channel Alteration 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 13	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
7. Frequency of Riffles (or bends) 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
8. Bank Stability (score each bank) 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			
9. Vegetative Protection (score each bank) 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			
10. Riparian Vegetative Zone Width (score each bank riparian zone) 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					
6. Channel Alteration 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 20	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
7. Frequency of Riffles (or bends) 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
8. Bank Stability (score each bank) 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			
9. Vegetative Protection (score each bank) 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			
10. Riparian Vegetative Zone Width (score each bank riparian zone) 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					
6. Channel Alteration 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 13	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
7. Frequency of Riffles (or bends) 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
8. Bank Stability (score each bank) 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			
9. Vegetative Protection (score each bank) 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			
10. Riparian Vegetative Zone Width (score each bank riparian zone) 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					
6. Channel Alteration 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
7. Frequency of Riffles (or bends) 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
8. Bank Stability (score each bank) 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			
9. Vegetative Protection (score each bank) 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			
10. Riparian Vegetative Zone Width (score each bank riparian zone) 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					
6. Channel Alteration 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 20	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
7. Frequency of Riffles (or bends) 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
8. Bank Stability (score each bank) 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			
9. Vegetative Protection (score each bank) 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			
10. Riparian Vegetative Zone Width (score each bank riparian zone) 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 WL005	LOCATION Segment 3 DU-E/DU-E Shift	
STATION # _____ RIVERMILE _____	STREAM CLASS Use I	
LAT 39.700087 LONG -79.096101	RIVER BASIN Youghiogheny	
STORET # _____	AGENCY MD SHA	
INVESTIGATORS AK, MH		
FORM COMPLETED BY AK, JB	DATE Aug 1, 2022 TIME PM AM PM	REASON FOR SURVEY US 219 improvements

WEATHER CONDITIONS	Now <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	Past 24 hours <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____% <input checked="" type="checkbox"/>	Has there been a heavy rain in the last 7 days? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Air Temperature <u>18</u> °C Other _____
	SITE LOCATION/MAP Draw a map of the site and indicate the areas sampled (or attach a photograph) <p align="center">See Photolog</p>		
STREAM CHARACTERIZATION	Stream Subsystem <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal Stream Origin <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 _____		
	Stream Type <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater Catchment Area _____ km ²		

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

WATERSHED FEATURES	Predominant Surrounding Landuse <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		Local Watershed NPS Pollution <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources Local Watershed Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy
RIPARIAN VEGETATION (18 meter buffer)	Indicate the dominant type and record the dominant species present <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>		
INSTREAM FEATURES	<div style="display: flex; justify-content: space-between;"> <div> Estimated Reach Length <u>30</u> m Estimated Stream Width <u><1</u> m Sampling Reach Area <u>30</u> m² Area in km² (m²x1000) _____ km² Estimated Stream Depth <u>.1</u> m Surface Velocity (at thalweg) _____ m/sec </div> <div> Canopy Cover <input checked="" type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded High Water Mark <u>.1</u> m Proportion of Reach Represented by Stream Morphology Types <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div> </div>		
LARGE WOODY DEBRIS	LWD <u>0</u> m ² Density of LWD _____ m ² /km ² (LWD/ reach area)		
AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <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> %		
WATER QUALITY	<div style="display: flex; justify-content: space-between;"> <div> Temperature _____ °C Specific Conductance _____ Dissolved Oxygen _____ pH _____ Data not collected Turbidity _____ WQ Instrument Used _____ </div> <div> Water Odors <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 _____ Water Surface Oils <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 _____ Turbidity (if not measured) <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>		
SEDIMENT/SUBSTRATE	<div style="display: flex; justify-content: space-between;"> <div> Odors <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 _____ Oils <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse </div> <div> Deposits <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 _____ Looking at stones which are not deeply embedded, are the undersides black in color? <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 WL008	LOCATION Segment 3 DU-E/DU-E Shift	
STATION # _____ RIVERMILE _____	STREAM CLASS Use I	
LAT 39.701242 LONG -79.095114	RIVER BASIN Youghiogheny	
STORET # _____	AGENCY MD SHA	
INVESTIGATORS AK, MH		
FORM COMPLETED BY AK, JB	DATE Aug 1, 2022 TIME PM AM PM	REASON FOR SURVEY US 219 improvements

WEATHER CONDITIONS	<p>Now</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>Past 24 hours</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/> %</p> <p><input checked="" type="checkbox"/></p>	<p>Has there been a heavy rain in the last 7 days?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Air Temperature <u>18</u> °C</p> <p>Other _____</p>
SITE LOCATION/MAP	<p>Draw a map of the site and indicate the areas sampled (or attach a photograph)</p> <p>See Photolog</p>		
STREAM CHARACTERIZATION	<p>Stream Subsystem</p> <p><input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal</p> <p>Stream Origin</p> <p><input type="checkbox"/> Glacial <input checked="" 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 type="checkbox"/> Other _____</p> <p>Stream Type</p> <p><input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater</p> <p>Catchment Area _____ km²</p>		

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

WATERSHED FEATURES	Predominant Surrounding Landuse <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		Local Watershed NPS Pollution <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources Local Watershed Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy	
RIPARIAN VEGETATION (18 meter buffer)	Indicate the dominant type and record the dominant species present <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>			
INSTREAM FEATURES	<table style="width: 100%;"> <tr> <td style="width: 50%;"> Estimated Reach Length <u>16</u> m Estimated Stream Width <u><1</u> m Sampling Reach Area <u>16</u> m² Area in km² (m²x1000) _____ km² Estimated Stream Depth <u>.1</u> m Surface Velocity (at thalweg) _____ m/sec </td><td style="width: 50%;"> Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded High Water Mark <u>.1</u> m Proportion of Reach Represented by Stream Morphology Types <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td></tr> </table>		Estimated Reach Length <u>16</u> m Estimated Stream Width <u><1</u> m Sampling Reach Area <u>16</u> m ² Area in km² (m²x1000) _____ km ² Estimated Stream Depth <u>.1</u> m Surface Velocity (at thalweg) _____ m/sec	Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded High Water Mark <u>.1</u> m Proportion of Reach Represented by Stream Morphology Types <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Estimated Reach Length <u>16</u> m Estimated Stream Width <u><1</u> m Sampling Reach Area <u>16</u> m ² Area in km² (m²x1000) _____ km ² Estimated Stream Depth <u>.1</u> m Surface Velocity (at thalweg) _____ m/sec	Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded High Water Mark <u>.1</u> m Proportion of Reach Represented by Stream Morphology Types <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
LARGE WOODY DEBRIS	LWD <u>0</u> m ² Density of LWD _____ m ² /km ² (LWD/ reach area)			
AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <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> %			
WATER QUALITY	<table style="width: 100%;"> <tr> <td style="width: 50%;"> Temperature _____ °C Specific Conductance _____ Dissolved Oxygen _____ pH _____ Data not collected Turbidity _____ WQ Instrument Used _____ </td><td style="width: 50%;"> Water Odors <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 _____ Water Surface Oils <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 _____ Turbidity (if not measured) <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>		Temperature _____ °C Specific Conductance _____ Dissolved Oxygen _____ pH _____ Data not collected Turbidity _____ WQ Instrument Used _____	Water Odors <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 _____ Water Surface Oils <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 _____ Turbidity (if not measured) <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 _____
Temperature _____ °C Specific Conductance _____ Dissolved Oxygen _____ pH _____ Data not collected Turbidity _____ WQ Instrument Used _____	Water Odors <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 _____ Water Surface Oils <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 _____ Turbidity (if not measured) <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 _____			
SEDIMENT/SUBSTRATE	<table style="width: 100%;"> <tr> <td style="width: 50%;"> Odors <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 _____ Oils <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse </td><td style="width: 50%;"> Deposits <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 _____ Looking at stones which are not deeply embedded, are the undersides black in color? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td></tr> </table>		Odors <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 _____ Oils <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse	Deposits <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 _____ Looking at stones which are not deeply embedded, are the undersides black in color? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Odors <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 _____ Oils <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse	Deposits <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 _____ Looking at stones which are not deeply embedded, are the undersides black in color? <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 WL009	LOCATION Segment 3 DU-E/DU-E Shift	
STATION # _____ RIVERMILE _____	STREAM CLASS Use I	
LAT 39.712407 LONG -79.088188	RIVER BASIN Youghiogheny	
STORET # _____	AGENCY MD SHA	
INVESTIGATORS AK, MH		
FORM COMPLETED BY AK, JB	DATE Aug 2, 2022 TIME AM AM PM	REASON FOR SURVEY US 219 improvements

WEATHER CONDITIONS	Now <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	Past 24 hours <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____% <input checked="" type="checkbox"/>	Has there been a heavy rain in the last 7 days? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Air Temperature <u>18</u> °C Other _____
SITE LOCATION/MAP	Draw a map of the site and indicate the areas sampled (or attach a photograph) <p align="center">See Photolog</p>		
STREAM CHARACTERIZATION	Stream Subsystem Ephemeral <input type="checkbox"/> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Tidal Stream Origin <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 Stream Type <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater Catchment Area _____ km ²		

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

WATERSHED FEATURES	Predominant Surrounding Landuse <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		Local Watershed NPS Pollution <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources Local Watershed Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy
RIPARIAN VEGETATION (18 meter buffer)	Indicate the dominant type and record the dominant species present <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>		
INSTREAM FEATURES	<div style="display: flex; justify-content: space-between;"> <div> Estimated Reach Length <u>21</u> m Estimated Stream Width <u><1</u> m Sampling Reach Area <u>21</u> m² Area in km² (m²x1000) _____ km² Estimated Stream Depth <u>.1</u> m Surface Velocity (at thalweg) _____ m/sec </div> <div> Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded High Water Mark <u>.1</u> m Proportion of Reach Represented by Stream Morphology Types <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div> </div>		
LARGE WOODY DEBRIS	LWD <u>0</u> m ² Density of LWD _____ m ² /km ² (LWD/ reach area)		
AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <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> %		
WATER QUALITY	<div style="display: flex; justify-content: space-between;"> <div> Temperature _____ °C Specific Conductance _____ Dissolved Oxygen _____ pH _____ Data not collected Turbidity _____ WQ Instrument Used _____ </div> <div> Water Odors <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 _____ Water Surface Oils <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 _____ Turbidity (if not measured) <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>		
SEDIMENT/SUBSTRATE	<div style="display: flex; justify-content: space-between;"> <div> Odors <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 _____ </div> <div> Deposits <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 _____ Looking at stones which are not deeply embedded, are the undersides black in color? <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 <u>WL010</u>	LOCATION <u>Segment 3 DU-E/DU-E Shift</u>	
STATION # _____ RIVERMILE _____	STREAM CLASS <u>Use I</u>	
LAT <u>39.712407</u> LONG <u>-79.088188</u>	RIVER BASIN <u>Youghiogheny</u>	
STORET # _____	AGENCY <u>MD SHA</u>	
INVESTIGATORS <u>AK, MH</u>		
FORM COMPLETED BY <u>AK, JB</u>	DATE <u>Aug 2, 2022</u> TIME <u>AM</u> AM PM	REASON FOR SURVEY <u>US 219 improvements</u>

WEATHER CONDITIONS	Now <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	Past 24 hours <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____% <input checked="" type="checkbox"/>	Has there been a heavy rain in the last 7 days? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Air Temperature <u>18</u> °C Other _____
SITE LOCATION/MAP	Draw a map of the site and indicate the areas sampled (or attach a photograph) <p align="center">See Photolog</p>		
STREAM CHARACTERIZATION	Stream Subsystem <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal		
	Stream Origin <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>Mixture of origins</u>		
	Stream Type <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater Catchment Area _____ km ²		

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

WATERSHED FEATURES	Predominant Surrounding Landuse <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		Local Watershed NPS Pollution <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources Local Watershed Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy
RIPARIAN VEGETATION (18 meter buffer)	Indicate the dominant type and record the dominant species present <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>		
INSTREAM FEATURES	<div style="display: flex; justify-content: space-between;"> <div> Estimated Reach Length <u>40</u> m Estimated Stream Width <u><1</u> m Sampling Reach Area <u>40</u> m² Area in km² (m²x1000) _____ km² Estimated Stream Depth <u>.1</u> m Surface Velocity (at thalweg) _____ m/sec </div> <div> Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded High Water Mark <u>.1</u> m Proportion of Reach Represented by Stream Morphology Types <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div> </div>		
LARGE WOODY DEBRIS	LWD <u>0</u> m ² Density of LWD _____ m ² /km ² (LWD/ reach area)		
AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <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> %		
WATER QUALITY	<div style="display: flex; justify-content: space-between;"> <div> Temperature _____ °C Specific Conductance _____ Dissolved Oxygen _____ pH _____ Data not collected Turbidity _____ WQ Instrument Used _____ </div> <div> Water Odors <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 _____ Water Surface Oils <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 _____ Turbidity (if not measured) <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>		
SEDIMENT/SUBSTRATE	<div style="display: flex; justify-content: space-between;"> <div> Odors <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 _____ Oils <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse </div> <div> Deposits <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 _____ Looking at stones which are not deeply embedded, are the undersides black in color? <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 WL021	LOCATION Segment 2 DU/E	
STATION # _____ RIVERMILE _____	STREAM CLASS Use I	
LAT 39.720366 LONG -79.082099	RIVER BASIN Youghiogheny	
STORET # _____	AGENCY MD SHA	
INVESTIGATORS AK, MH		
FORM COMPLETED BY AK, JB	DATE Aug 3, 2022 TIME PM AM PM	REASON FOR SURVEY US 219 improvements

WEATHER CONDITIONS	<div style="display: flex; justify-content: space-between;"> <div> Now <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 </div> <div> Past 24 hours <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> % <input checked="" type="checkbox"/> </div> <div> Has there been a heavy rain in the last 7 days? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Air Temperature <u>18</u> °C Other _____ </div> </div>
SITE LOCATION/MAP	<p>Draw a map of the site and indicate the areas sampled (or attach a photograph)</p> <p style="font-size: 1.5em; text-align: center;">See Photolog</p>
STREAM CHARACTERIZATION	<div style="display: flex; justify-content: space-between;"> <div> Stream Subsystem <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal Stream Origin <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 _____ </div> <div> Stream Type <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater Catchment Area _____ km² </div> </div>

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

WATERSHED FEATURES	Predominant Surrounding Landuse <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	Local Watershed NPS Pollution <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources Local Watershed Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy
RIPARIAN VEGETATION (18 meter buffer)	Indicate the dominant type and record the dominant species present <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>	
INSTREAM FEATURES	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Estimated Reach Length <u>8</u> m Estimated Stream Width <u><1</u> m Sampling Reach Area <u>8</u> m² Area in km² (m²x1000) _____ km² Estimated Stream Depth <u>.1</u> m Surface Velocity (at thalweg) _____ m/sec </div> <div style="width: 45%;"> Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded High Water Mark <u>.1</u> m Proportion of Reach Represented by Stream Morphology Types <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div> </div>	
LARGE WOODY DEBRIS	LWD <u>0</u> m ² Density of LWD _____ m ² /km ² (LWD/ reach area)	
AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <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> %	
WATER QUALITY	<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%;"> Water Odors <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 _____ Water Surface Oils <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 _____ Turbidity (if not measured) <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>	
SEDIMENT/SUBSTRATE	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Odors <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 _____ Oils <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse </div> <div style="width: 45%;"> Deposits <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 _____ Looking at stones which are not deeply embedded, are the undersides black in color? <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)	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 WL028	LOCATION Segment 2 DU/E	
STATION # _____ RIVERMILE _____	STREAM CLASS Use I	
LAT 39.719728 LONG -79.082514	RIVER BASIN Youghiogheny	
STORET # _____	AGENCY MD SHA	
INVESTIGATORS AK, MH		
FORM COMPLETED BY AK, JB	DATE Oct 27, 2022 TIME PM AM PM	REASON FOR SURVEY US 219 improvements

WEATHER CONDITIONS	Now <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	Past 24 hours <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____% <input checked="" type="checkbox"/>	Has there been a heavy rain in the last 7 days? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Air Temperature <u>13</u> °C Other _____
	SITE LOCATION/MAP Draw a map of the site and indicate the areas sampled (or attach a photograph) See Photolog		
STREAM CHARACTERIZATION	Stream Subsystem <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Tidal Stream Origin <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 _____		
	Stream Type <input type="checkbox"/> Coldwater <input checked="" type="checkbox"/> Warmwater Catchment Area _____ km ²		

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

WATERSHED FEATURES	Predominant Surrounding Landuse <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		Local Watershed NPS Pollution <input type="checkbox"/> No evidence <input checked="" type="checkbox"/> Some potential sources <input type="checkbox"/> Obvious sources Local Watershed Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy
RIPARIAN VEGETATION (18 meter buffer)	Indicate the dominant type and record the dominant species present <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>		
INSTREAM FEATURES	<div style="display: flex; justify-content: space-between;"> <div> Estimated Reach Length <u>18</u> m Estimated Stream Width <u><1</u> m Sampling Reach Area <u>18</u> m² Area in km² (m²x1000) _____ km² Estimated Stream Depth <u>.1</u> m Surface Velocity (at thalweg) _____ m/sec </div> <div> Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded High Water Mark <u>.1</u> m Proportion of Reach Represented by Stream Morphology Types <input type="checkbox"/> Riffle _____ % <input checked="" type="checkbox"/> Run <u>100</u> % <input type="checkbox"/> Pool _____ % Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div> </div>		
LARGE WOODY DEBRIS	LWD <u>0</u> m ² Density of LWD _____ m ² /km ² (LWD/ reach area)		
AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <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> %		
WATER QUALITY	<div style="display: flex; justify-content: space-between;"> <div> Temperature _____ °C Specific Conductance _____ Dissolved Oxygen _____ pH _____ Data not collected Turbidity _____ WQ Instrument Used _____ </div> <div> Water Odors <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 _____ Water Surface Oils <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 _____ Turbidity (if not measured) <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>		
SEDIMENT/SUBSTRATE	<div style="display: flex; justify-content: space-between;"> <div> Odors <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 _____ Oils <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Profuse </div> <div> Deposits <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 _____ Looking at stones which are not deeply embedded, are the undersides black in color? <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



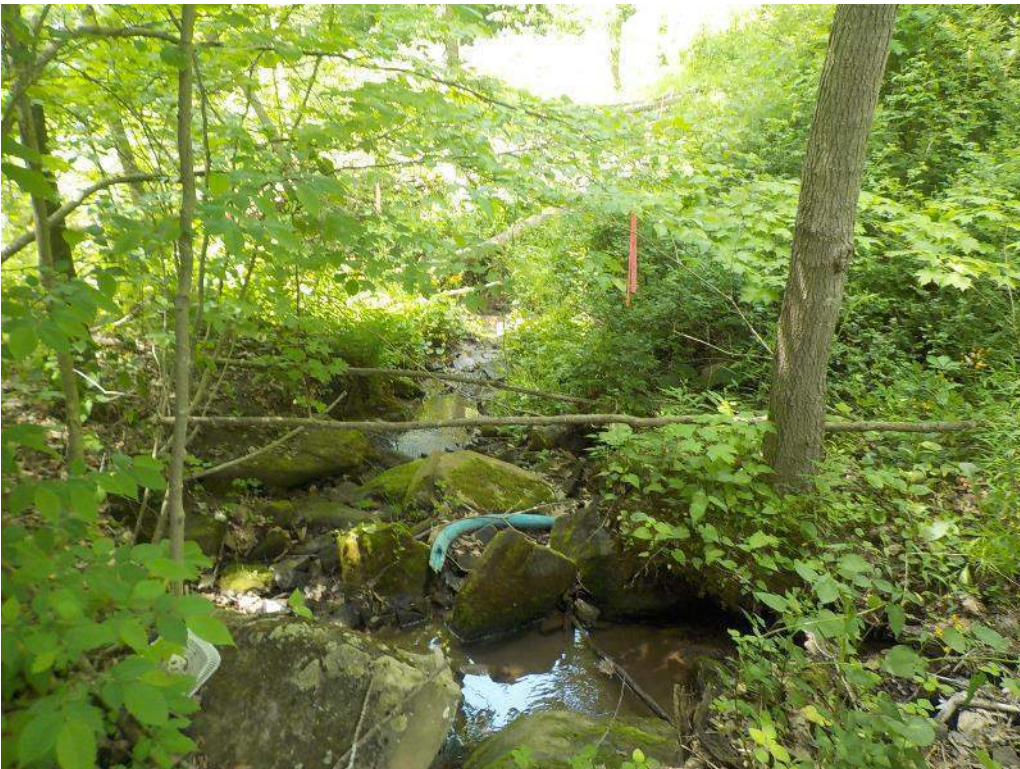
Photographer: Connor Sullivan

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



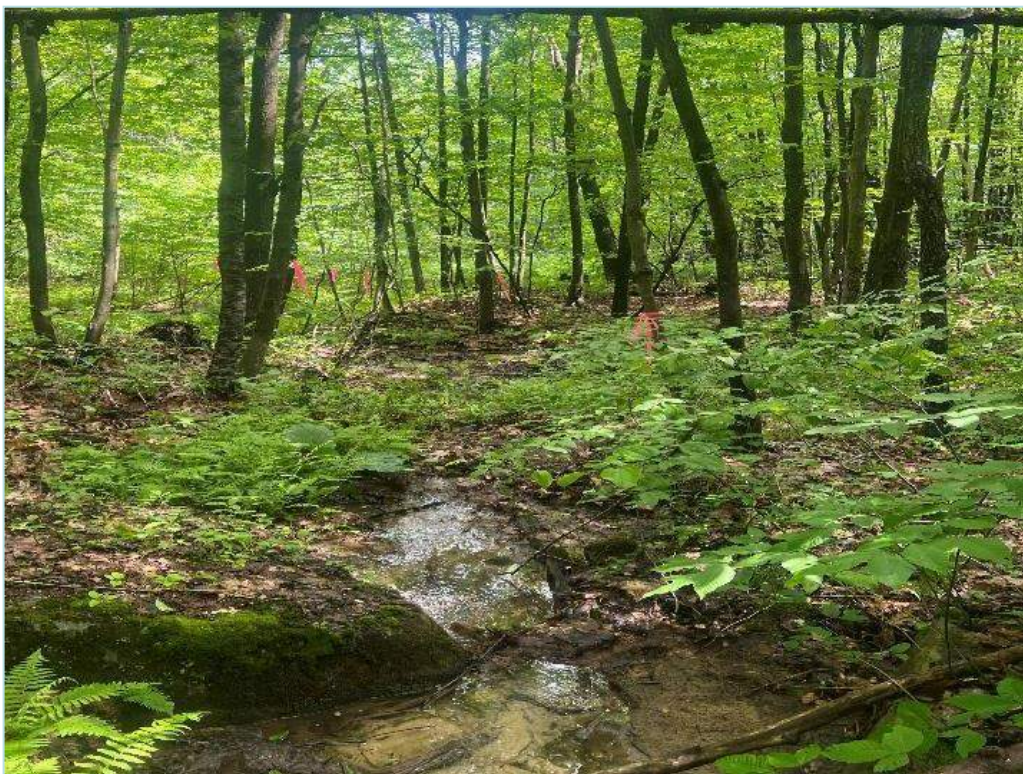
Photographer: Connor Sullivan

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



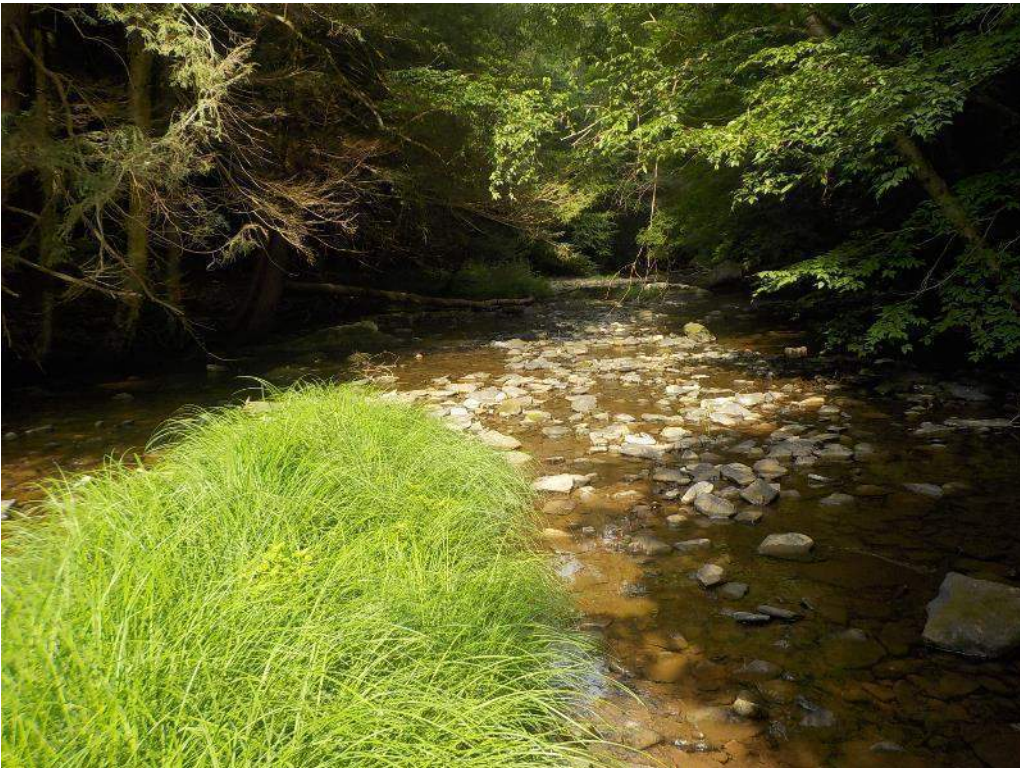
Photographer: Connor Sullivan

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

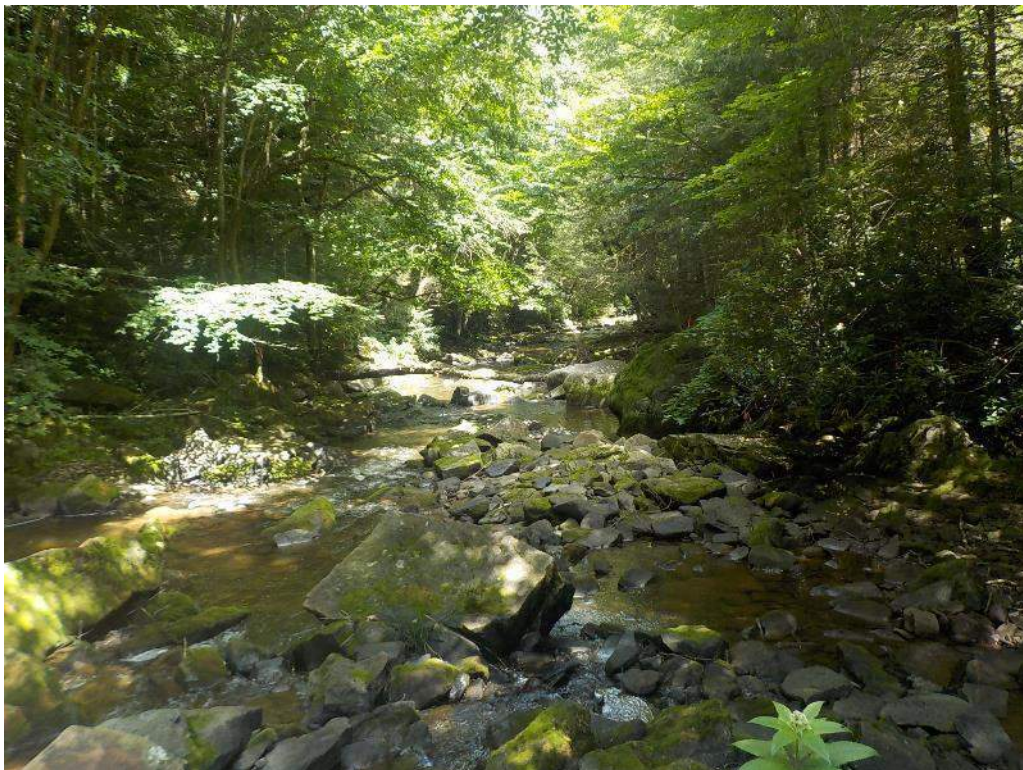
Direction: West

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

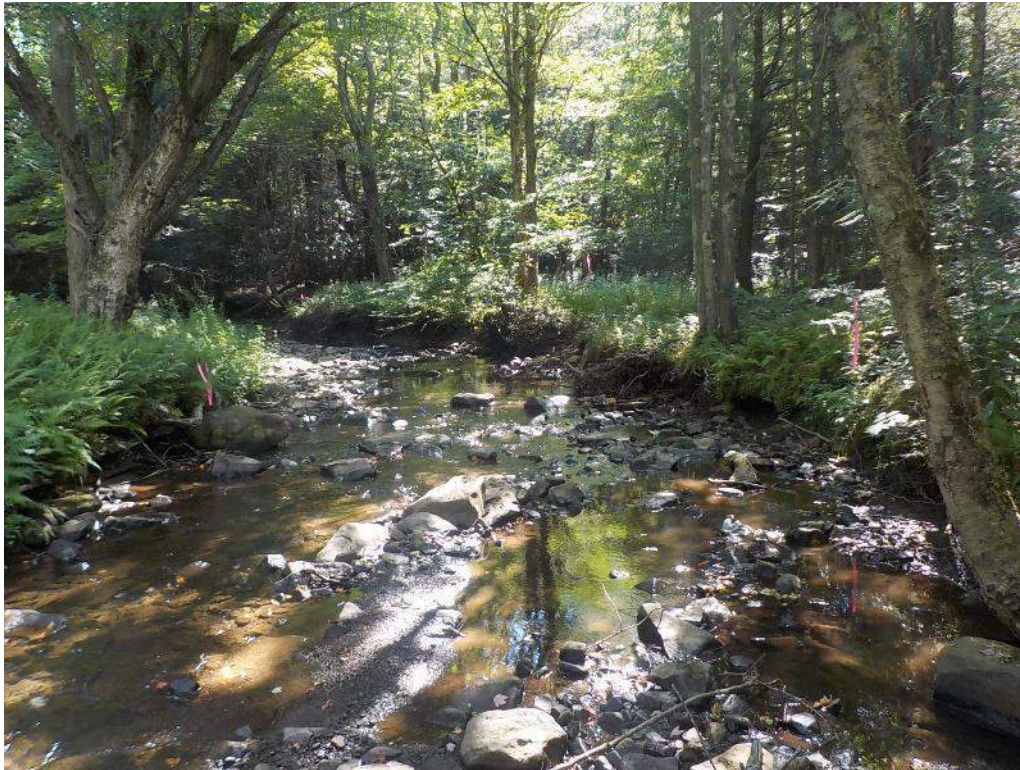


Photographer: Connor Sullivan
Date: 8/2/22
Photo No. 202
Direction: South
Comments: Looking upstream
along Stream S39 Meadow Run,
from near the lower limit of the
upper portion of the stream



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

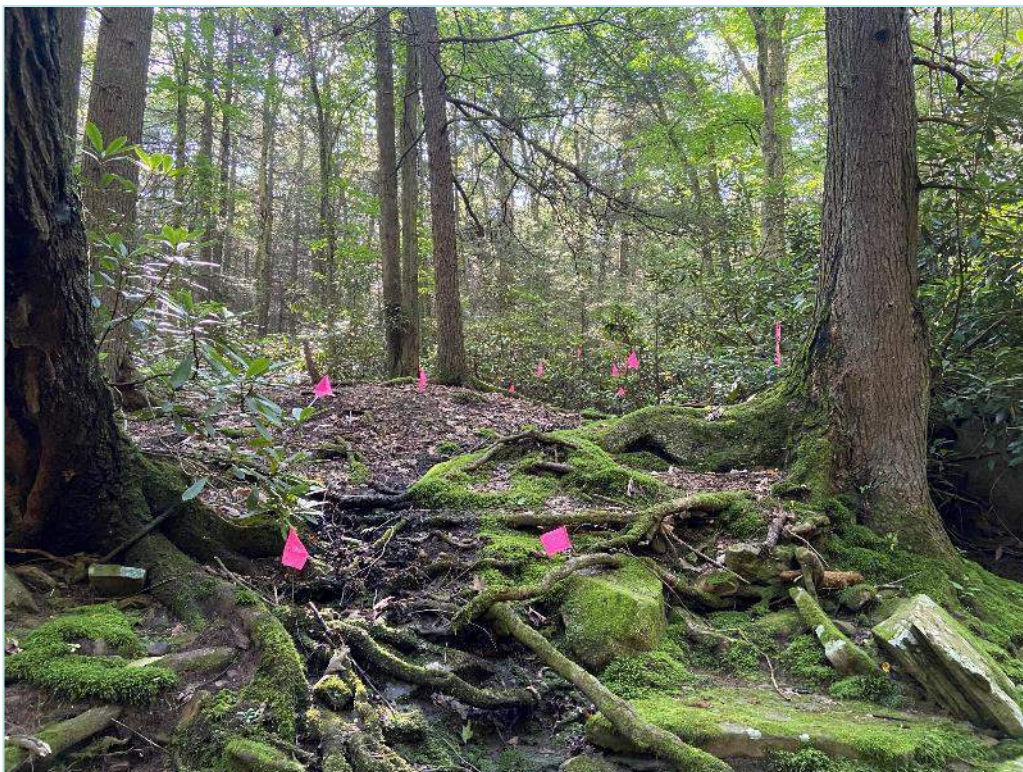


Photographer: Connor Sullivan
Date: 8/3/22
Photo No. 217
Direction: Northwest
Comments: Looking downstream along Stream S44, from the upstream side of Piney Run Road

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



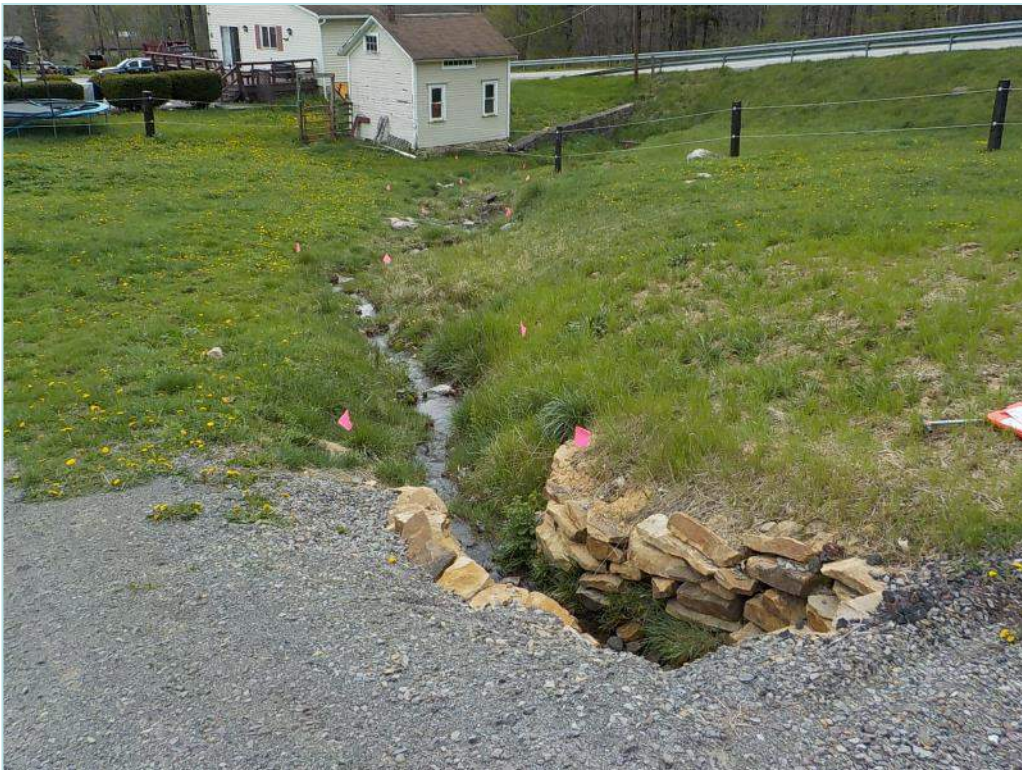
Photographer: Connor Sullivan

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



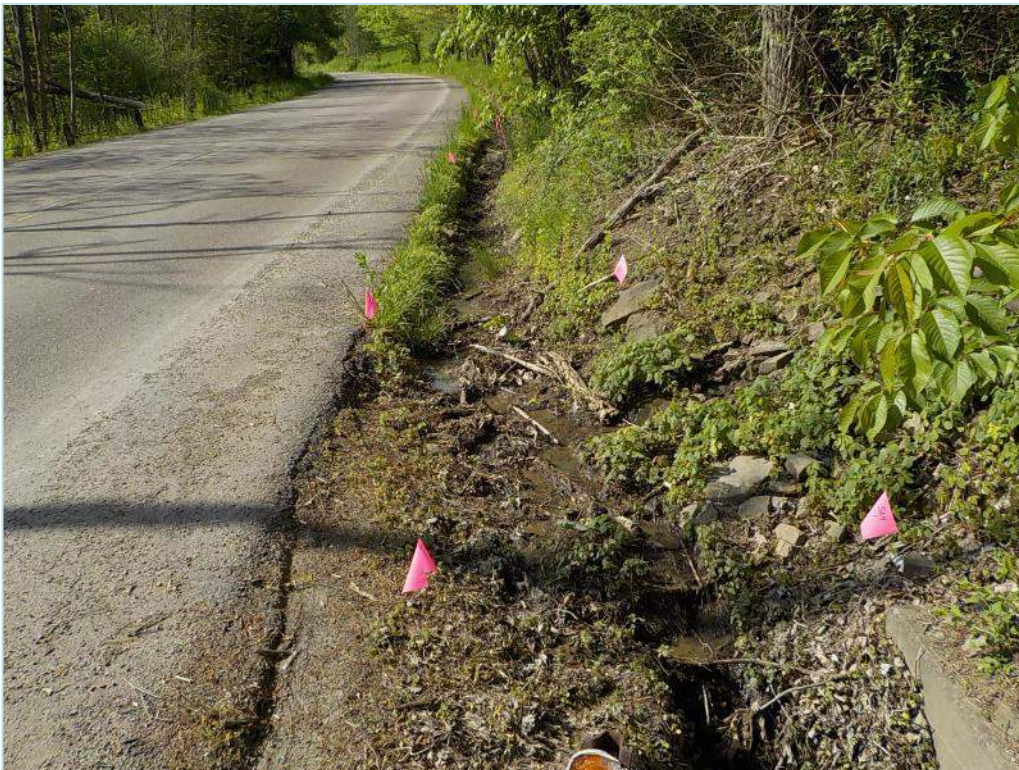
Photographer: Connor Sullivan

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

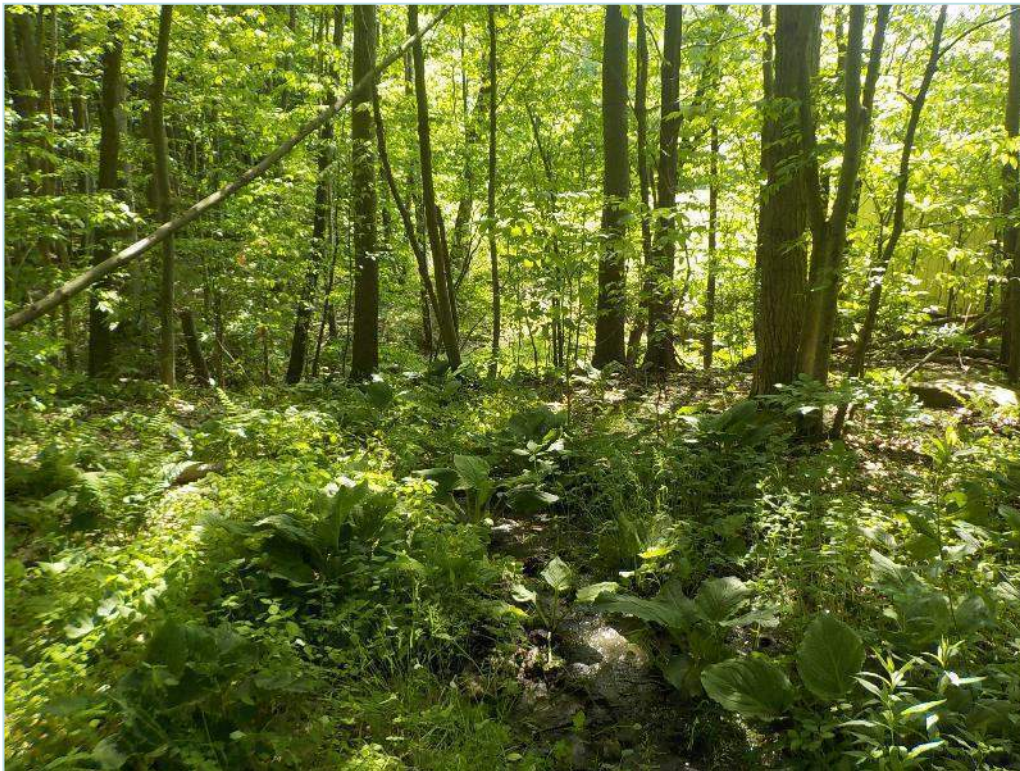
Comments: Wetland W11

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



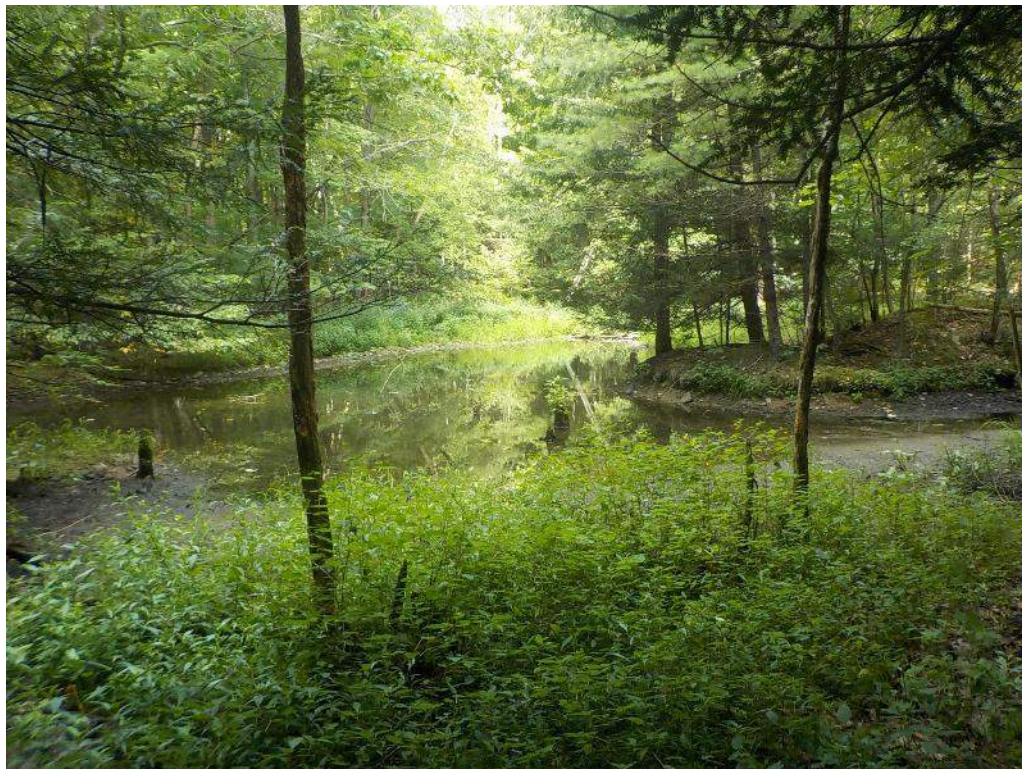
Photographer: Connor Sullivan

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

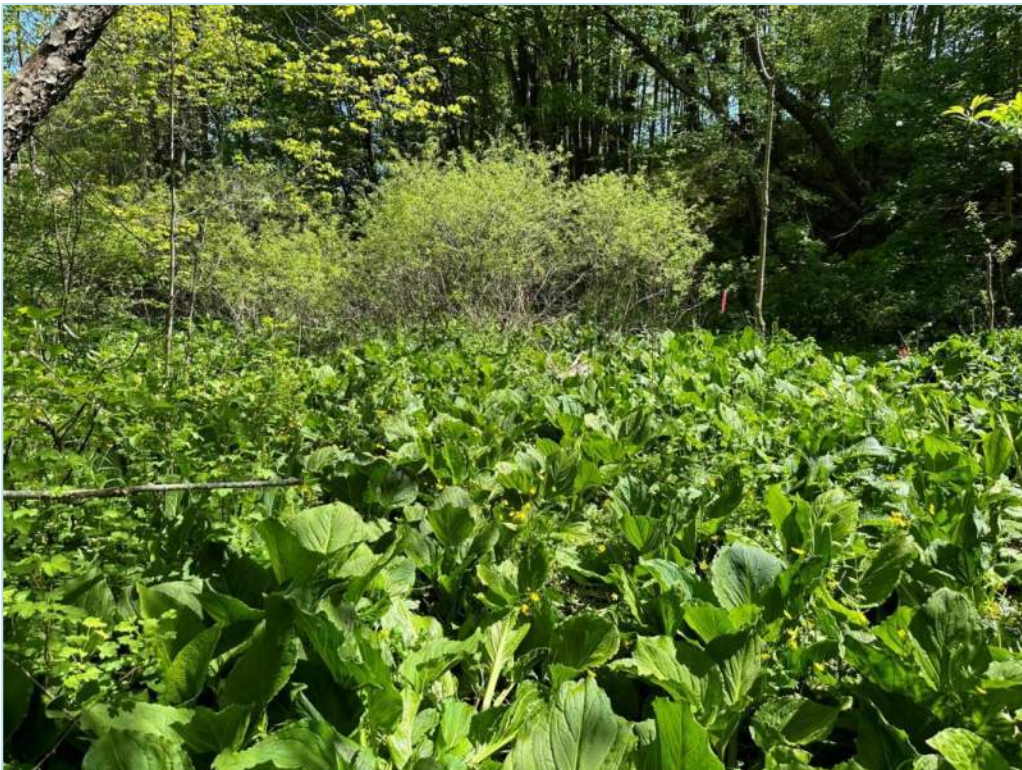
Photographic Record

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



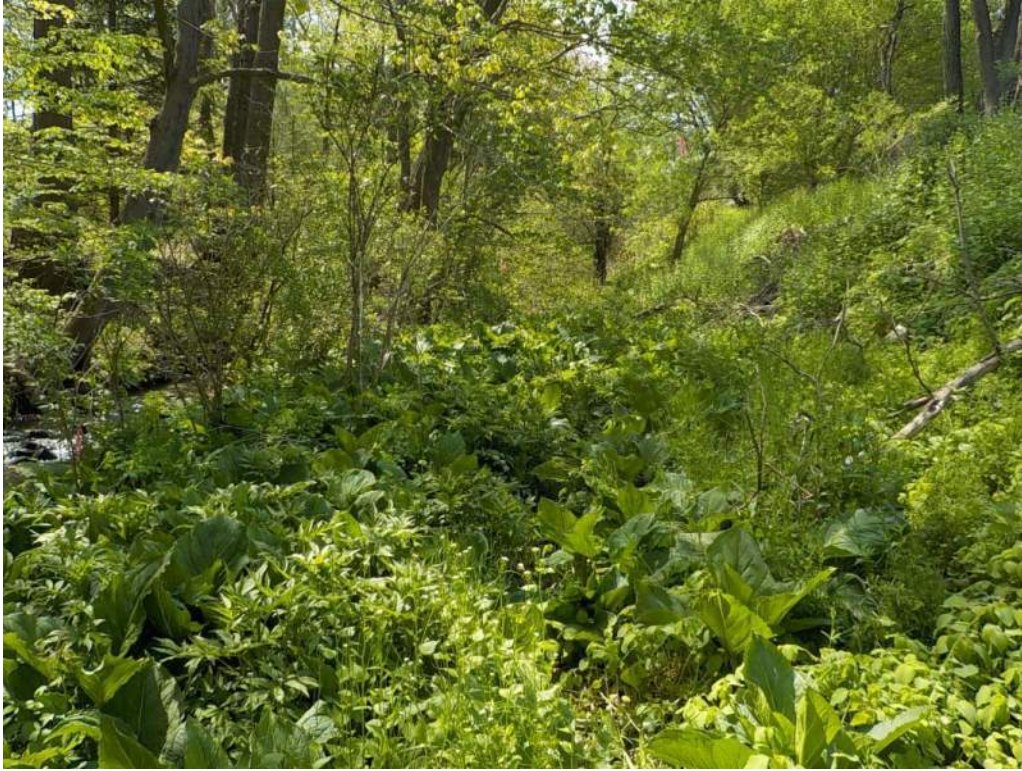
Photographer: Clayton Frey
Date: 5/17/23
Photo No. 248
Direction: South
Comments: Wetland W83

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



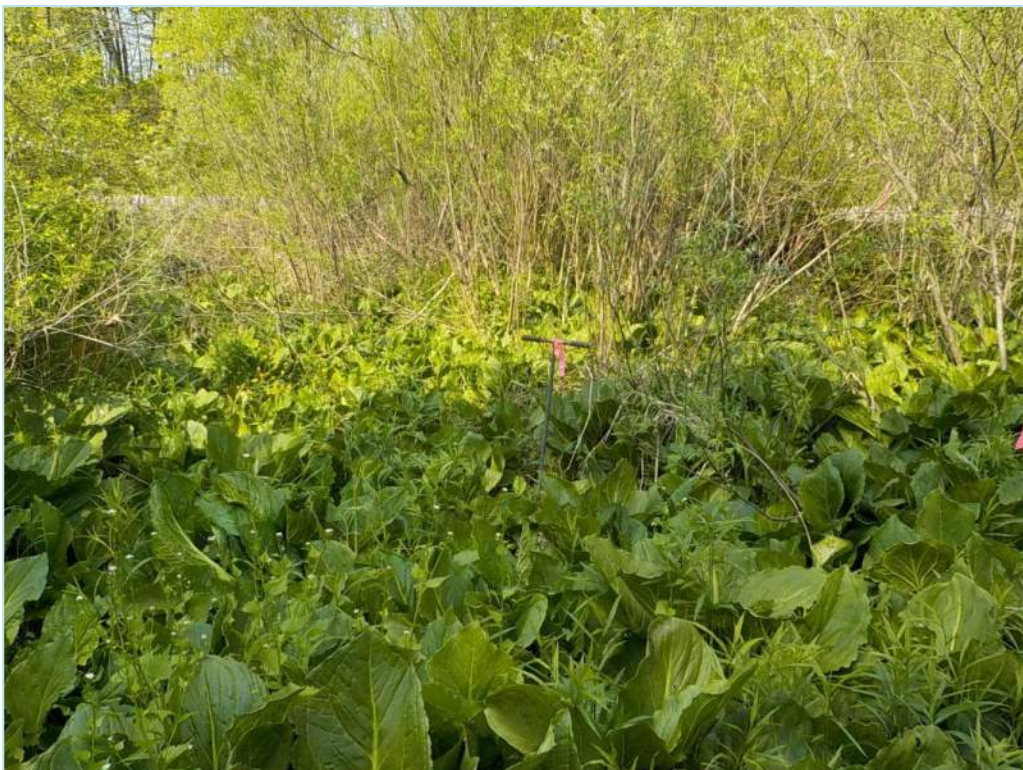
Photographer: Connor Sullivan

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

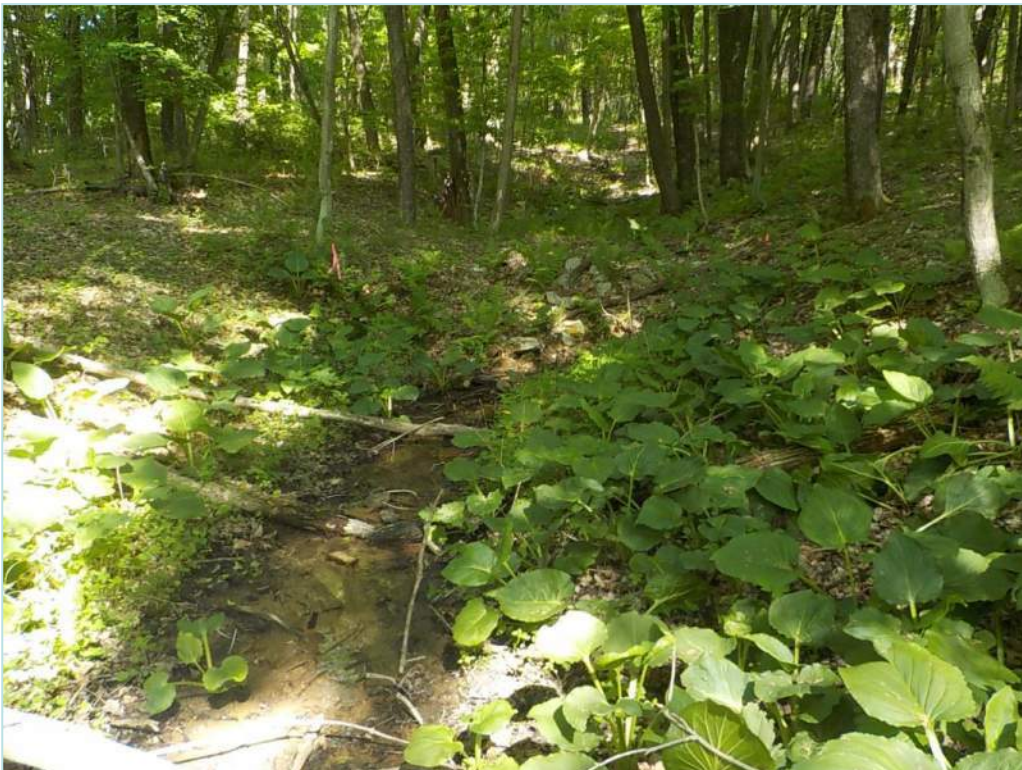
Photographic Record

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

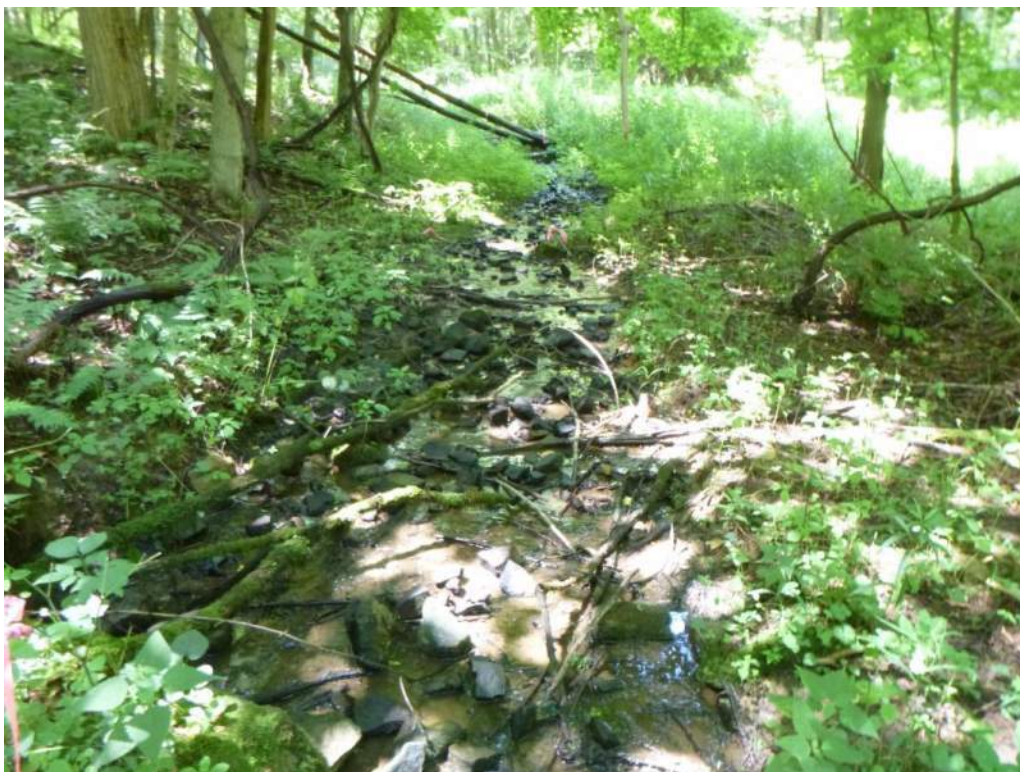
KCI Technologies, Inc.

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

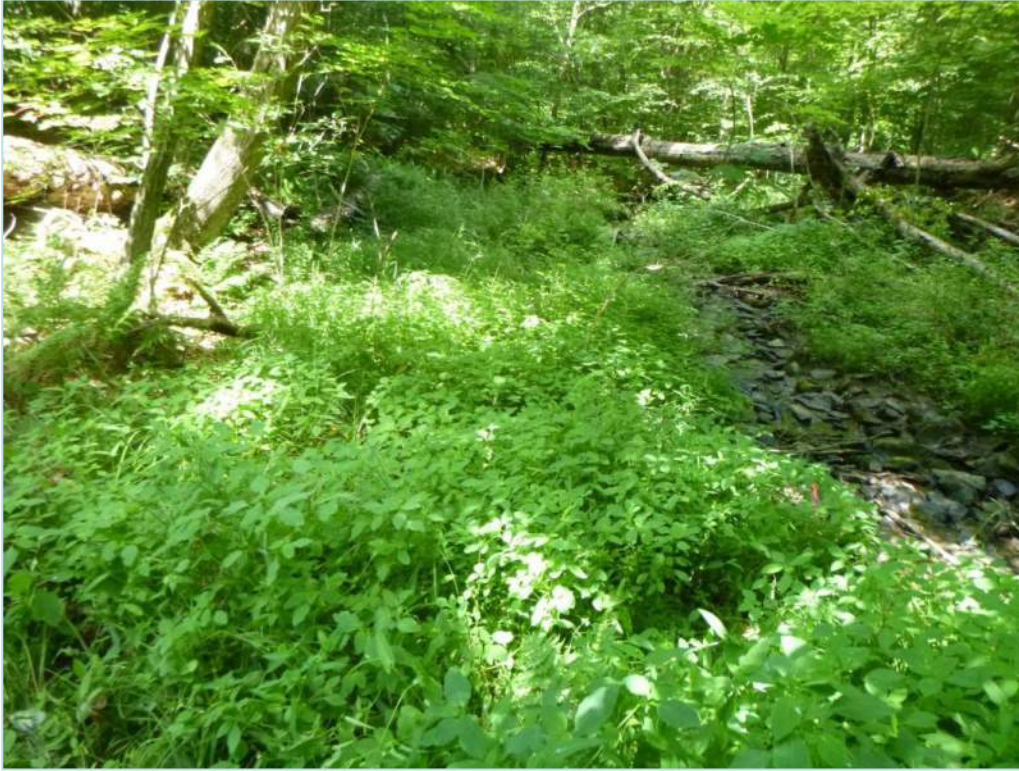
Comments: Overview of WP025-WET

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