State Route 653, Section 07B Bridge Replacement
Over South Glade Creek

WETLAND IDENTIFICATION AND DELINEATION REPORT

Milford Township
Somerset County, Pennsylvania

Prepared By:

PENNDOT Engineering District 9-0
Environmental Unit
1620 North Juniata Street
Hollidaysburg, PA 16648

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- Appendix D – Wetland Delineation and Photograph Location Map
1.0 INTRODUCTION

This report presents the methodology and the results of the wetland identification and delineation conducted by the Pennsylvania Department of Transportation (PennDOT), Engineering District 9-0 Environmental Unit for the proposed replacement of the structure carrying State Route 0653, Section 07B (SR 653) over South Glade Creek. The proposed project is located within Milford Township, Somerset County, Pennsylvania (39°55’39”N Latitude and 79°10’30”W Longitude). Refer to Figure 1 – Project Location Map within Appendix A. The replacement of the bridge has been proposed due to deterioration and a low sufficiency rating. The replacement will provide for a safe means of travel and an updated transportation facility.

The purpose of the investigation described in this report is to identify the location and extent of any wetland habitats within the project area. This information will be used in the project design and development process to avoid and minimize wetland impacts. The following sections present the methodology and the findings of the background and field investigations conducted for the project.

2.0 WETLAND DETERMINATION METHODOLOGY

This section provides detailed information on the methodology used for the investigation. The section is separated in accordance to the methodology used to review secondary source information (literature review) and to conduct field investigations.

2.1 Secondary Source Information

Initial investigations for the possible presence of wetland habitats within the study area were identified through review of secondary source information. The review consisted of an examination of the following data sources and published information:

1. U.S. Geological Survey, 7.5 Minute, Rockwood, PA Quadrangle – The mapping is examined to evaluate topographic relief, drainage patterns, and watershed characteristics, as well as, the identification of streams, tributaries, and other waterbodies located within the project area.
2. National Wetland Inventory, Rockwood, PA Quadrangle – The mapping is used to identify wetland communities which were identified by the U.S. Fish and Wildlife Service (USFWS) through aerial photography.
4. NRCS list of Hydric Soils for Somerset County – The list is used to identify the hydric status of soils within the study area.

Data gathered through this literature review is used initially to identify potential wetland areas based on recorded vegetation, soil, and hydrologic characteristics.

2.2 Field Investigation Procedures

Upon the conclusion of secondary source information review, field investigations are conducted in order to identify and delineate wetland habitats in accordance with the Routine On-Site Determination Procedure as outlined within the 1987 United States Army Corps of Engineers’ Wetland Delineation Manual (1987 Manual). All wetland habitats are classified in accordance with the USFWS Classification of Deepwater Habitats for the United States (Cowardin et. al 1979). No assessment of wetland functional values was preformed during the investigations conducted for this project.

In accordance with the 1987 Manual, wetland identification methodology requires an evaluation of communities throughout the site for the presence of: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Under normal circumstances, for an area to be classified as wetland, the presence of
these three (3) parameters is mandatory. In areas where one or more of these parameters is not present due to disturbance or atypical situations, professional judgment is used to determine if these parameters would be present under normal circumstances. The methodology used to identify the required three (3) parameters is presented in the following sections.

### 2.2.1 Identification of Hydrophytic Vegetation

Using the rating system developed by the USFWS for the *National List of Plant Species that Occur in Wetlands*, on-site vegetation is classified into one of the following wetland indicator categories:

a. Obligate Wetland (OBL) – occur almost always under natural conditions in wetlands (estimate probability >99%).

b. Facultative Wetland (FACW) – usually occur in wetlands (estimated probability 67-99%) but occasionally found in non-wetlands.

c. Facultative (FAC) – equally likely to occur in wetlands or non-wetlands (estimated probability 34-66%).

d. Facultative Upland (FACU) – usually occur in non-wetlands (estimated probability 67-99%) but occasionally found in wetlands.

e. Obligate Upland (UPL) – occur almost always in non-wetlands (estimated probability >99%).

Plant communities that consist of greater than fifty percent (50%) dominant OBL, FACW, and FAC species are considered hydrophytic for the purposes of the wetland classification criteria.

### 2.2.2 Identification of Hydric Soils

A field investigation is conducted to confirm the presence of hydric soils in the areas specified by the NRCS soil mapping and to investigate other non-hydric soil mapping units to determine if they contain any hydric soil inclusions. The soils are evaluated based on the mandatory technical criteria for hydric soils, as set forth by the National Technical Committee for Hydric Soils of the NRCS. Additionally, field indicators for wetness are evaluated throughout the study area by examining soil samples. In nonsandy soils, these field indicators include organic soils, histic epipedons, sulfidic material, aquic or peraquic moisture regimes, reducing soil conditions, soil color, soils appearing on hydric soils list, and iron and manganese concretions. In sandy soils, these field indicators include high organic matter content in the surface horizon, streaking of subsurface horizons by organic matter, and organic pans.

### 2.2.3 Identification of Hydrology

Determination of hydrology during field investigations includes visual observation of permanent or periodic inundation of the soil, soil saturation within a major portion of the root zone [usually within 30.5 centimeters (12 inches)] of the prevalent vegetation, watermarks, drift lines, sediment deposits, and drainage patterns within wetlands.

### 3.0 FINDINGS

The following sections present the findings of the investigation. The section is separated in accordance with the findings of the secondary source review and field investigations conducted for the project.

### 3.1 Secondary Source Review Findings

Detailed information obtained through review of secondary source information is provided below according to examination of the USGS quadrangle, NWI Mapping and through review of published soil data sources and mapping.
3.1.1 USGS Quadrangle

The proposed project is located between the towns of New Centerville and Rockwood in Somerset County, PA. The project resides within a low-lying area surrounded by predominantly rolling terrain. The local relief ranges from 2260 feet Above Mean Sea Level (AMSL) within the hill areas to the east and west to approximately 2000 feet AMSL at the project site. Natural drainage patterns within this area flow in a southerly direction towards South Glade Creek to its confluence with the Casselman River, just west of Rockwood. Review of the USGS mapping indicates that the proposed project is located within a predominantly rural setting with residences, maintained lawns and a small riparian corridor surrounding the project area.

Refer to Figure 1 – Project Location Map in Appendix A.

3.1.2 National Wetland Inventory

The National Wetland Inventory was developed by the USFWS to classify and inventory the nation’s wetlands. Wetland habitats are identified and mapped through stereoscopic analysis of high-altitude, aerial photographs. Each map has polymorphic outlines that, in general, demarcate wetland boundaries and ecological systems. Despite the value of this information for general office evaluations, this information does not replace detailed on-site investigations due to the margin of error inherent in the use of aerial photographs.

Review of the NWI mapping for the project area indicated the presence of two (2) mapped wetland habitat. These habitats consist of a Palustrine Emergent (PEM5C) and a Palustrine Open Water (PUBHh) wetland systems. These mapped habitats will not be directly impacted by the proposed bridge replacement project.

Refer to Figure 2 - NWI Map in Appendix A for the location of this mapped wetland system in reference to the existing bridge and project area.

3.1.3 Soil Data and Mapping

Review of the NRCS Soil Survey of Somerset County, Pennsylvania and the Penn State SoilMap internet site revealed the presence of one (1) soil series within the project area. The soil properties of these NRCS mapping units are presented in the following table.

Refer to Figure 3 – Soils Map in Appendix A for the location of these soils in relation to the project area.

<table>
<thead>
<tr>
<th>Table 1: Soil Properties of NRCS Mapping Units within the Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map Unit</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Ernest Silt loam (BrB)</td>
</tr>
</tbody>
</table>

3.2 Field Investigation Findings

On April 30, 2007, The PENNDOT 9-0 Environmental Unit conducted field investigations for the presence of wetland habitats within the study area. The study area consisted of the examination of all four (4) quadrants surrounding the bridge and watercourse. Land uses within these areas consisted of mostly maintained lawns, scrub-shrub and forested vegetation. During the field reconnaissance event, one (1) Palustrine Emergent (PEM) wetland, one (1) Palustrine Scrub-Shrub/Emergent (PSS/PEM) wetland and one (1) perennial watercourse were identified within the study area. The following sections present detailed characteristics of these wetlands, as well as, South Glade Creek. A table summarizing Waters of the United States identified within the project area is also presented below.
Refer to Appendices B, C and D, respectively, for wetland and upland data forms, photographs and mapping depicting wetland and stream boundaries, as well as, photograph locations.

Wetland W1

Wetland W1 consists of a Palustrine Emergent (PEM) wetland habitat approximately 0.030 acres in size within the study area boundaries. Approximately 0.002 acres will be permanently impacted by the project with an additional 0.018 acres of temporary impact. The wetland was left open-ended to denote continuation outside the study area limits. This wetland lies within floodplain area adjacent to the eastern side of the watercourse and south of the existing bridge. The geomorphic orientation of the wetland can be characterized as a depressional system. Dominant vegetation identified during the investigation included skunk cabbage, bedstraw, ground ivy, wild onion and jewelweed. The majority of these species are considered hydrophytic. One (1) soil horizon was encountered during the investigation. The A Horizon consisted of sandy silt with a representative *Munsell* soil matrix color of 7.5YR 3/1 with no evidence of mottling. The A Horizon was followed by rock and fill material. However, the soils identified within the A Horizon exhibited hydric characteristics such as low chroma soil colors. Primary hydrology indicators observed during the investigation included soil saturation in the upper 12 inches and water-stained leaves. Hydrology appeared to be supplied via overland, roadway drainage and seasonal flooding of South Glade Creek.

Wetland W2

Wetland W2 consists of a Palustrine Scrub-Shrub/Emergent (PSS/PEM) wetland habitat approximately 0.020 acres in size within the study area boundaries. The wetland was left open-ended to denote continuation outside the study area. The geomorphic orientation of the wetland can be characterized as a fringe system located to the north of the existing structure and to the western side of the watercourse. Dominant vegetation identified during the investigation included skunk cabbage, silky dogwood, eastern ninebark, anemone and various sedge species. The majority of these species are considered hydrophytic. Two (2) soil horizons were encountered during the investigation. The A horizon contained sandy silt with a representative *Munsell* soil matrix color of 10YR 3/2 with no evidence of mottling. The B horizon consisted of sandy silt a representative *Munsell* soil matrix color of 10YR 3/1 with many and distinctive mottles of 7.5YR 4/6. The soil exhibited hydric characteristics such as low chroma soil colors and reducing conditions. Primary hydrology indicators observed during the investigation included soil saturation in the upper 12 inches, water-stained leaves and drainage patterns within the system. Hydrology appeared to be supplied via the watercourse, as well as, overland/surface flows.

South Glade Creek

South Glade Creek is considered a warm water fishery (WWF) and classified by DEP’s Chapter 93 Water Quality Standards for the maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat. Additionally, South Creek is not classified as an Approved Trout Water and/or a Wild Trout Stream by the Pennsylvania Fish and Boat Commission.

Table 2: Summary of Waters of the United States Located Within the Project Area.

<table>
<thead>
<tr>
<th>Waters of the United States</th>
<th>Area within Project (acres)</th>
<th>Wetland Classification</th>
<th>Chapter 93 Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland W1*</td>
<td>0.030</td>
<td>PEM</td>
<td>N/A</td>
</tr>
<tr>
<td>Wetland W2*</td>
<td>0.020</td>
<td>PSS/PEM</td>
<td>N/A</td>
</tr>
<tr>
<td>South Glade Creek</td>
<td>N/A</td>
<td>N/A</td>
<td>WWF</td>
</tr>
</tbody>
</table>

* - Indicates that wetland extends beyond the project boundary
4.0 LIST OF PREPARERS

Sarah McClellan  
Education: B.S. Biology, University of Pittsburgh  
Experience: 6 years  
Role: Wetland Delineation  

Attilio Squillario  
Education: B.S. Earth Sciences, Pennsylvania State University  
Experience: 9 years  
Role: Wetland Delineation, Author  

5.0 BIBLIOGRAPHY

Commonwealth of Pennsylvania, Department of Environmental Protection, Title 25, Chapter 93, Water Quality Standards.


Penn State SoilMap website http://www.soilmap.psu.edu.


APPENDIX A

FIGURES
Figure 1 – PROJECT LOCATION MAP
SR 653/07B Bridge Replacement Over South Glade Creek
Milford Township, Somerset County, Pennsylvania

Source: USGS 7.5 Minute Rockwood, PA Quadrangle
Figure 2 - NWI MAP
SR 653/07B Bridge Replacement Over South Glade Creek
Milford Township, Somerset County, Pennsylvania

Source: http://wetlandsfws.er.usgs.gov
Figure 3 – SOILS MAP
SR 653/07B Bridge Replacement Over South Glade Creek
Milford Township, Somerset County, Pennsylvania

Source: www.soilsmap.psu.edu
APPENDIX B

WETLAND DATA FORMS
## DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLAND DELINEATION MANUAL)

<table>
<thead>
<tr>
<th>Project/Site:</th>
<th>SR 653 Bridge Replacement over South Glade Creek</th>
<th>Date:</th>
<th>04/30/07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant/Owner:</td>
<td>PennDOT District 9-0</td>
<td>County:</td>
<td>Somerset</td>
</tr>
<tr>
<td>Investigator:</td>
<td>SKM, ASS</td>
<td>State:</td>
<td>PA</td>
</tr>
</tbody>
</table>

Do Normal Circumstances exist on the site? **Yes X No**
Is the site significantly disturbed (Atypical Situation)? **Yes** _No X_ Classification: **PEM**
Is the area a potential Problem Area? **Yes** _No X_ Plot ID: 

### VEGETATION

<table>
<thead>
<tr>
<th>Dominant Plant Species</th>
<th>Stratum</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Skunk cabbage</td>
<td>Symplocarpus foetidus</td>
<td>H</td>
</tr>
<tr>
<td>2. Bedstraw</td>
<td>Galium tinctorium</td>
<td>H</td>
</tr>
<tr>
<td>3. Ground ivy</td>
<td>Glecoma hederacea</td>
<td>H</td>
</tr>
<tr>
<td>4. Wild onion</td>
<td>Allium cernum</td>
<td>H</td>
</tr>
<tr>
<td>5. jewelweed</td>
<td>Impatiens capensis</td>
<td>H</td>
</tr>
</tbody>
</table>

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 60% hydrophytic vegetation

Remarks: Greater than 50% of the dominant species are indicated as OBL, FACW or FAC

### HYDROLOGY

- **Recorded Data (Described in Remarks):**
  - Stream, Lake, or Tide Gauge
  - Aerial Photographs
  - Other
  - **X** No Recorded Data Available

**Field Observation**
- Depth of Surface Water: **none** (in.)
- Depth of Free Water in Pit: **none** (in.)
- Depth of Saturated Soil: to surface (in.)

**Wetland Hydrology Indicators**
- **Primary Indicators:**
  - Inundated
  - Saturated in Upper 12 Inches
  - Water Marks
  - Drift Lines
  - Sediment Deposits
  - Drainage Patterns in Wetlands

**Secondary Indicators (2 or more required):**
- Oxidized Root Channels in Upper 12 Inches
  - Water - Stained Leaves
  - Local Soil Survey Data
  - FAC - Neutral Test
  - Other (Explain in Remarks)

Remarks: Hydrology via overland flow, roadway drainage and stream overflow. Wetland lies within a depressional area adjacent to the watercourse.
SOILS

Map Unit Name (Series and Phase): ErB - Ernest silt loam

Drainage Class: poorly drained

Field Observations

Taxonomy (Subgroup): Typic Fragiudults

Confirmed Mapped Type? Yes  X  No

Profile Description

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Matrix Colors (Munsell Moist)</th>
<th>Texture, Concretions, Structure, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>7.5YR 3/1</td>
<td>sandy silt with fill</td>
</tr>
<tr>
<td>10+</td>
<td></td>
<td>Fill material</td>
</tr>
</tbody>
</table>

Hydric Soil Indicators

- Histosol
- Histic Epipedon
- Sulfidic Odor
- Aquic Moisture Regime
- Reducing Conditions
- Gleyed or Low - Chroma Colors

Remarks: The soil exhibits hydric characteristics such as low chromas.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes  X  No

Wetland Hydrology Present? Yes  X  No

Hydric Soils Present? Yes  X  No

Is this Sampling Point Within a Wetland? Yes  X  No

Remarks: The three criteria have been met to indicate wetland habitat is present.

The wetland was flagged W1-1 through W1-4 and left open-ended.
DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLAND DELINEATION MANUAL)

Project/Site: SR 653 Bridge Replacement over South Glade Creek
Applicant/Owner: PennDOT District 9-0
Investigator: SKM, ASS
Date: 04/30/07
County: Somerset
State: PA

Do Normal Circumstances exist on the site? Yes X No
Is the site significantly disturbed (Atypical Situation)? Yes ___ No X
Is the area a potential Problem Area? Yes ___ No X

Wetland ID: Wetland W2
Classification: PSS/PEM
Plot ID:

VEGETATION

<table>
<thead>
<tr>
<th>Dominant Plant Species</th>
<th>Stratum</th>
<th>Indicator</th>
<th>Dominant Plant Species</th>
<th>Stratum</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skunk cabbage</td>
<td>H</td>
<td>OBL 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silky dogwood</td>
<td>SS</td>
<td>FACW 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern ninebark</td>
<td>H</td>
<td>FACW 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anemone canadenis</td>
<td>H</td>
<td>UND 13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedge spp</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 80% hydrophytic vegetation
Remarks: Greater than 50% of the dominant species are indicated as OBL, FACW or FAC

HYDROLOGY

Recorded Data (Described in Remarks):
- Stream, Lake, or Tide Gauge
- Aerial Photographs
- Other
- X No Recorded Data Available

Field Observation
- Depth of Surface Water: none (in.)
- Depth of Free Water in Pit: none (in.)
- Depth of Saturated Soil: to surface (in.)

Wetland Hydrology Indicators
Primary Indicators:
- X Inundated
- X Saturated in Upper 12 Inches
- Water Marks
- Drift Lines
- Sediment Deposits
- X Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12 Inches
- X Water - Stained Leaves
- Local Soil Survey Data
- FAC - Neutral Test
- Other (Explain in Remarks)

Remarks: Hydrology via overland flow, roadway drainage and stream overflow. Wetland lies within a floodplain area adjacent to the watercourse.
### SOILS

**Map Unit Name**

(Series and Phase): ErB - Ernest silt loam

Drainage Class: poorly drained

Field Observations

**Taxonomy (Subgroup):** Typic Fragiudults

Confirmed Mapped Type? Yes X No

**Profile Description**

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Horizon</th>
<th>Matrix Colors</th>
<th>Mottle</th>
<th>Texture, Concretions, Structure, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>A</td>
<td>10YR 3/2</td>
<td>none</td>
<td>sandy silt</td>
</tr>
<tr>
<td>5-16</td>
<td>B</td>
<td>10YR 3/1</td>
<td>7.5YR 4/6</td>
<td>many/distinctive</td>
</tr>
</tbody>
</table>

**Hydric Soil Indicators**

<table>
<thead>
<tr>
<th>Hidrosol</th>
<th>Concretions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Histic Epipedon</td>
<td>High Organic Content in Surface Layer in Sandy Soils</td>
</tr>
<tr>
<td>Sulfidic Odor</td>
<td>Organic Streaking in Sandy Soils</td>
</tr>
<tr>
<td>X Aquic Moisture Regime</td>
<td>Listed on Local Hydric Soils List (Hydric Inclusions)</td>
</tr>
<tr>
<td>X Reducing Conditions</td>
<td>Listed on National Hydric Soils List</td>
</tr>
<tr>
<td>X Gleyed or Low - Chroma Colors</td>
<td>Other (Explain in Remarks)</td>
</tr>
</tbody>
</table>

Remarks: The soil exhibits hydric characteristics such as low chromas and reducing conditions.

### WETLAND DETERMINATION

**Hydrophytic Vegetation Present?** Yes X No

**Wetland Hydrology Present?** Yes X No

**Hydric Soils Present?** Yes X No

**Is this Sampling Point Within a Wetland?** Yes X No

Remarks: The three criteria have been met to indicate wetland habitat is present. The wetland was flagged W2-1 through W2-6 and left open-ended.
**DATA FORM**

**ROUTINE WETLAND DETERMINATION**

(1987 COE WETLAND DELINEATION MANUAL)

<table>
<thead>
<tr>
<th>Project/Site:</th>
<th>SR 653 Bridge Replacement over South Glade Creek</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant/Owner:</td>
<td>PennDOT District 9-0</td>
</tr>
<tr>
<td>Investigator:</td>
<td>SKM ASS</td>
</tr>
<tr>
<td>Date:</td>
<td>04/30/07</td>
</tr>
<tr>
<td>County:</td>
<td>Somerset</td>
</tr>
<tr>
<td>State:</td>
<td>PA</td>
</tr>
</tbody>
</table>

- **Do Normal Circumstances exist on the site?** Yes X No
- **Is the site significantly disturbed (Atypical Situation)?** Yes _ No X
- **Is the area a potential Problem Area?** Yes _ No X

Wetland ID: Upland
Classification: UP
Plot ID: 

**VEGETATION**

<table>
<thead>
<tr>
<th>Dominant Plant Species</th>
<th>Stratum</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wild onion Allium cernum</td>
<td>H</td>
<td>NI</td>
</tr>
<tr>
<td>2. Dandelion Taraxacum officinale</td>
<td>H</td>
<td>FACU</td>
</tr>
<tr>
<td>3. Rubus spp.</td>
<td>H</td>
<td>UND</td>
</tr>
<tr>
<td>4. Pitch pine Pinus rigida</td>
<td>C</td>
<td>FACU</td>
</tr>
<tr>
<td>5. grass spp.</td>
<td>H</td>
<td>UND</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 0% hydrophytic vegetation

Remarks less than 50% of the dominant species are indicated as OBL, FACW or FAC

**HYDROLOGY**

- **Recorded Data (Described in Remarks):**
  - Stream, Lake, or Tide Gauge
  - Aerial Photographs
- **No Recorded Data Available**

Field Observation
- Depth of Surface Water: none (in.)
- Depth of Free Water in Pit: none (in.)
- Depth of Saturated Soil: none (in.)

Remarks: No evidence of hydrology
### SOILS

<table>
<thead>
<tr>
<th>Map Unit Name (Series and Phase):</th>
<th>ErB - Ernest silt loam</th>
<th>Drainage Class:</th>
<th>poorly drained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxonomy (Subgroup):</td>
<td>Typic Fragiudults</td>
<td>Field Observations</td>
<td></td>
</tr>
</tbody>
</table>

**Confirmed Mapped Type?** Yes ___ No X

**Profile Description**

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Horizon</th>
<th>Matrix Colors (Munsell Moist)</th>
<th>Mottle Abundance/Contrast</th>
<th>Texture, Concretions, Structure, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>A</td>
<td>7.5YR 3/2</td>
<td>None</td>
<td>sandy silt</td>
</tr>
<tr>
<td>10-16</td>
<td>B</td>
<td>10YR 4/4</td>
<td>None</td>
<td>sandy silt</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hydric Soil Indicators**

- Histosol
- Histic Epipedon
- Sulfidic Odor
- Aquic Moisture Regime
- Reducing Conditions
- Gleyed or Low - Chroma Colors

**Remarks:**

- Concretions
- High Organic Content in Surface Layer in Sandy Soils
- Organic Streaking in Sandy Soils
- Listed on Local Hydric Soils List (Hydric Inclusions)
- Listed on National Hydric Soils List
- Other (Explain in Remarks)

### WETLAND DETERMINATION

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes ___ No X</th>
<th>Is this Sampling Point Within a Wetland?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes ___ No X</td>
<td></td>
</tr>
<tr>
<td>Hydric Soils Present?</td>
<td>Yes ___ No X</td>
<td>Yes ___ No X</td>
</tr>
</tbody>
</table>

**Remarks:** The three criteria have not been met to indicate wetland habitat is present.
APPENDIX C

PHOTOGRAPHS
PHOTOGRAPHS
S.R. 0653, Section 07B, S. Glade Creek Bridge
Milford Twp., Somerset County

Photograph 1 – View of bridge looking east.

Photograph 2 – View of Wetland W2 looking northeast.
PHOTOGRAPHS
S.R. 0653, Section 07B, S. Glade Creek Bridge
Milford Twp., Somerset County

Photograph 3 – View of bridge looking west.

Photograph 4 – View of Wetland W1 looking south.
APPENDIX D

WETLAND DELINEATION AND PHOTOGRAPH LOCATION MAP