

WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)

Project/Site: Allegheny Tunnel		Date: 07.09.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLE		State: PA	
Cowardin Classification (Percentage): PEM (100)		Wetland ID #: W-SRC-27	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: — (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input checked="" type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: 5 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 4		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - SW 3 - WETLAND PEM	
		2 - N 4 - UPLAND PEM	
Remarks: NO APPARENT CONNECTION - NO INLET/OUTLET.			

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: NEAR DROUGHT CONDITIONS NOTED @ TIME OF SURVEY.					

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: *W. SRC. 27*

VEGETATION

Tree Stratum Species					Dominance Test Worksheet		
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1					# of Dominant Species that are OBL, FACW, or FAC?	<i>2</i> (A)	
2					Total # of Dominant Species across all Strata?	<i>2</i> (B)	
3					% of Dominant Species that are OBL, FACW, or FAC?	<i>100</i> (A/B)	
4					Prevalence Index Worksheet		
5					Total % Cover of:	Mult. by:	
6					OBL species	1 =	
					FACW species	2 =	
					FAC species	3 =	
					FACU species	4 =	
					UPL species	5 =	
					Coln. Totals:	(A)	(B)
					Prevalence Index =	B/A =	
					Hydrophytic Vegetation Indicators		
					Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
					Dominance Test is >50%	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
					Prevalence Index is ≤3.0	<input type="checkbox"/> Yes	<input type="checkbox"/> No
					Morphological Adaptations	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
					Vegetation Strata Definitions		
					Tree – Woody plant 20+ feet high & 3+ in. dbh		
					Sapling – Woody plant 20+ feet high & <3 in. dbh		
					Shrub – Woody plant ~3-20 feet high		
					Woody Vine – All woody vines		
					Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
					Remarks:		
					<i>NOTED SPAGNUM MOSS.</i>		
					= Total Cover		
Herb Stratum Species							
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1	<i>CINNAMON FERN (OSMUNDA CINNAMOMI)</i>	<i>80</i>	<i>4</i>	<i>FACW</i>			
2							
3							
4							
5							
6							
7							
8							
9							
10							
					= Total Cover		
Woody Vine Stratum Species							
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1	<i>SWAMP DEWBERRY (RUBUS HISPIDUS)</i>	<i>100</i>	<i>4</i>	<i>FACW</i>			
2							
					= Total Cover		

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: *W.SRC.27*

SOILS

Soil Survey Map Unit Name/Symbol: -		Drainage Class: -		
Taxonomy: -		Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
<i>0 - 2</i>	<i>- / -</i>	<i>- / - / - / -</i>	<i>-</i>	<i>-</i>
<i>2 - 4</i>	<i>10YR 2/1 100</i>	<i>- / - / - / -</i>	<i>-</i>	<i>SILT LOAM</i>
<i>4 - 10</i>	<i>2.5YR 3/1 95</i>	<i>10YR 4/6 5 RM PL</i>	<i>FEW, DULL</i>	<i>SILT LOAM W/ SAND</i>
-	<i>/</i>	<i>/ / /</i>		
-	<i>/</i>	<i>/ / /</i>		
-	<i>/</i>	<i>/ / /</i>		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains Location: PL = Pore Lining and M = Matrix				
HYDRIC SOIL INDICATORS (Check All That Apply)				
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)			
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)			
<input type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)			
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other			
<input type="checkbox"/> Dark Surface (S7)				
INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)				
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other			
<input type="checkbox"/> Red Parent Material (TF2)				
Hydric Soil Present?	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No	
Remarks: <i>REFUSAL @ 10" DUE TO ROCK.</i>				

WETLAND ID #: *W.SRC.27*

HYDROLOGY

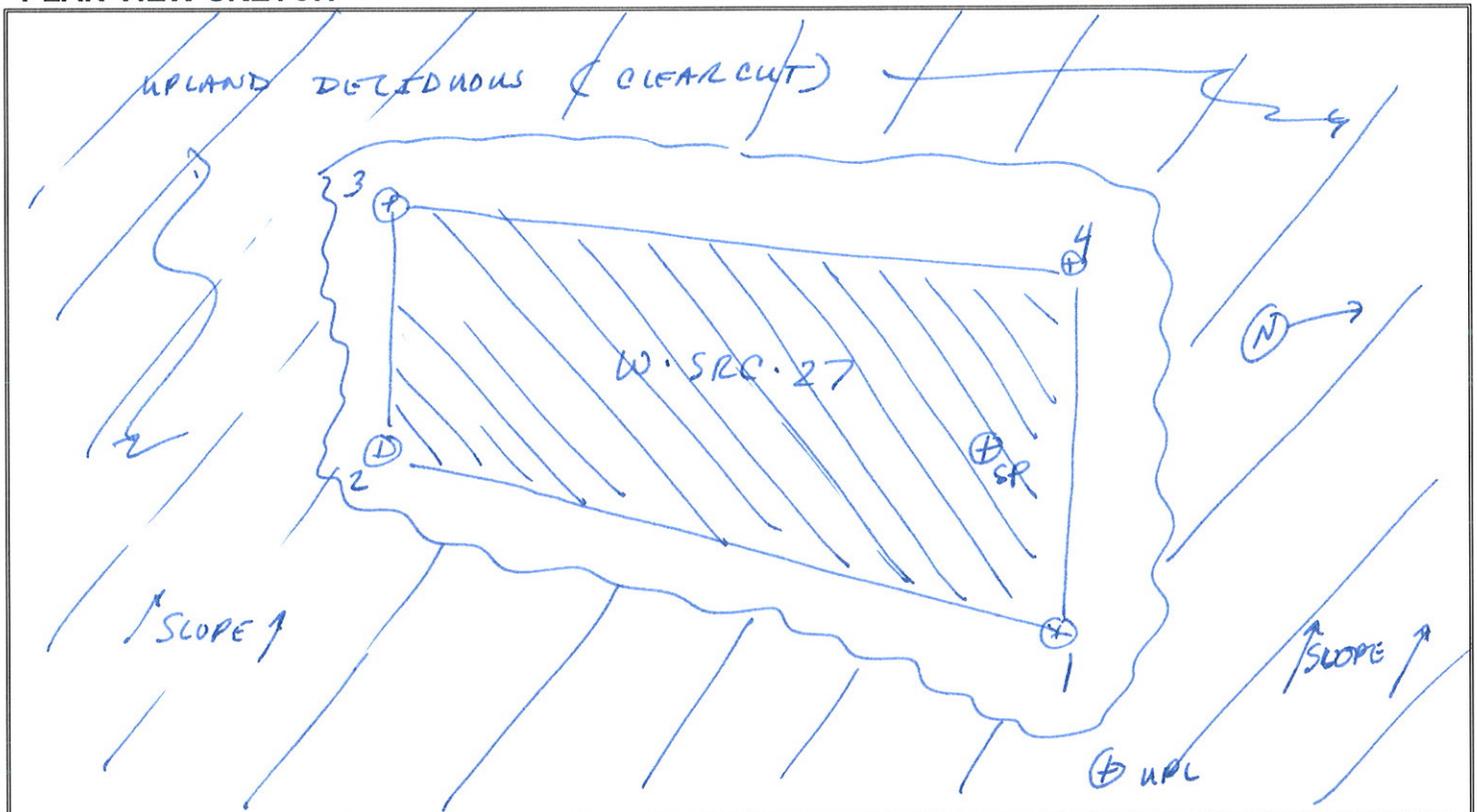
WETLAND HYDROLOGY INDICATORS	
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input checked="" 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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: <i>-</i> (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: <i>-</i> (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: <i>6</i> (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: *APPARENTLY ISOLATED - NO NOTED INLET / OUTLET.*

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SRC-27

VEGETATION

#	All Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator
1	SWEET BIRCH (<i>BETULA LINTA</i>)	30	y	FACU
2	RED MAPLE (<i>ACER RUBRUM</i>)	70	y	FAC
3				
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: <i>WETLAND VEG. IS PRESENT AND DOMINANT @ SAMPLE PT.</i>				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 3	10YR 2/1 / 100	- / - / - / -	-	LOAM
7 - 10	10Y 3/2 / 100	- / - / - / -	-	SILT LOAM / SILT CL.
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: <i>HYDRIC SOILS NOT PRESENT @ SAMPLE PT.</i>				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> FAC-Neutral Test	<input type="checkbox"/> Other
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Recorded Data (Describe in Remarks)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Aerial Photographs	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> No Recorded Data Available	
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Presence of Reduced Iron (C4)		
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Other	<input type="checkbox"/> Other		
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: <i>WETLAND HYDROLOGY NOT PRESENT @ SAMPLE PT.</i>			



W-SRC-27 overview, facing north.



W-SRC-27 overview, facing southwest.



W-SRC-27 wetland soil test pit.



W-SRC-27 upland soil test pit.

WETLAND W-SRC-28

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07.11.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SRC, KLL		State: PA
Cowardin Classification (Percentage): PFW/PSS () ~ 50/39/11		Wetland ID #: W-SRC-28 SP-1
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are "Normal Circumstances" present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input checked="" type="checkbox"/> Soils, or <input checked="" type="checkbox"/> Hydrology significantly disturbed (Atypical)? <i>POUCHURE ROW</i>		
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?		
NWI Classification: (if applicable)		
Landform/Geomorphic Setting (Check All That Apply)		
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace	
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel	
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain	
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan	
<input checked="" type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta	
<input type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -	
Slope: -5 %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:	Datum:	
No. of Flags: (87)	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A	1- E 3- WETLAND PIT 2- S 4- WLAND PIT	
Remarks: NO APPARENT INLET OR OUTLET - ISOLATED.		

SUMMARY OF FINDINGS

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

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W SRE 28 SP-1

SOILS

Soil Survey Map Unit Name/Symbol: -	Drainage Class: -
Taxonomy: -	Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 1.5	- / -	- / - / - / -	-	-
1.5 - 4	2.5Y 2.5/1.1 100	- / - / - / -	-	SILT LOAM
4 - 12	2.5Y 4/2.1 80	10YR 4/6/20 / RM / M	FEW, DULL	CLAY LOAM
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks:		

WETLAND ID #: W. SRC. 28 SP-1

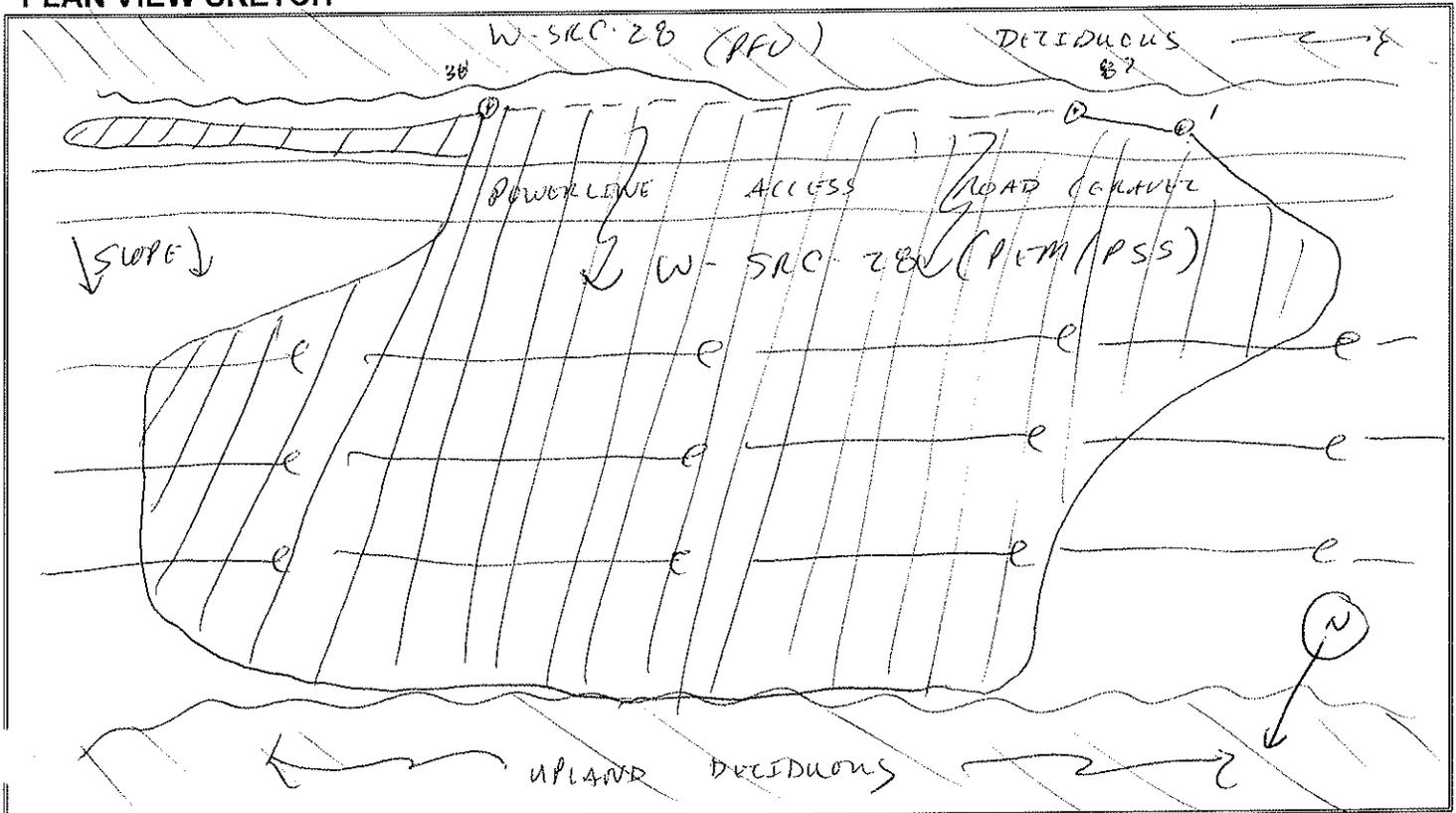
HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 6 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: APPARENTLY ISOLATED - NO INLET OR OUTLET.

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W. SAC. 20 SP-1

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SWIFT FERN (COMPTONIA PERUVIANA)	20	Y	N/A
2	DOBSONW (APOCYNUM CANADENSE)	25	Y	FACU
3	RED MAPLE (ACER RUBRUM)	5	N	FAC
4	POTENTILLA (POTENTILLA SEMPLOX)	15	N	FACU
5	DEERTONGUE OR. (DICANTHOLOM CLAUDIVITRUM)	20	Y	FAC
6	SOLIDAGO SP	30	Y	-
		100	= Total Cover	
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: WETLAND VEG. IS PRESENT AND DOMINANT @ SAMPLE PT. (50/20).				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
1 - 3	10YR 3/5 1 100	- 1 - 1 - 1 -	-	SILT CLAY
3 - 6	10YR 4/6 1 100	- 1 - 1 - 1 -	-	SILT CLAY
6 - 11	10YR 4/6 1 100	- 1 - 1 - 1 -	-	SILT CLAY
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND SOILS NOT PRESENT @ SAMPLE PT.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS				
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard	
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs	
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available	
FIELD OBSERVATIONS				
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of:	1 (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of:	1 (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to:	1 (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Remarks: NO WETLAND HYDROLOGY NOTED.				

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07.11.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC LLC		State: PA	
Cowardin Classification (Percentage) <i>swm/pf/bsa</i> <i>50/39/11</i>		Wetland ID #: W-SRC-28 SP-2	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input checked="" type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: 25%		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: (87)		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - E 3 - WETLAND PIT 2 - W 4 - UPLAND PIT	
Remarks: APPARENTLY ISOLATED - NO OBVIOUS INLET OR OUTLET			

SUMMARY OF FINDINGS

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

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-SAC-28 SP-2
SOILS

Soil Survey Map Unit Name/Symbol: - Drainage Class: -
 Taxonomy: - Field Observations Confirm Mapped Type: Yes No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 5	10YR 2/1 1 100	- / - / - / -	-	SILT
5 - 10	10YR 3/2 1 100	- / - / - / -	-	SILT w/ SAND
10 - 12	7.5YR 4/1 1 100	- / - / - / -	-	SILT w/ SAND
-	1	1 / 1 / 1	-	
-	1	1 / 1 / 1	-	

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains
Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present? Yes No

Remarks:

WETLAND ID #: W-SRC-28 SP-2

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

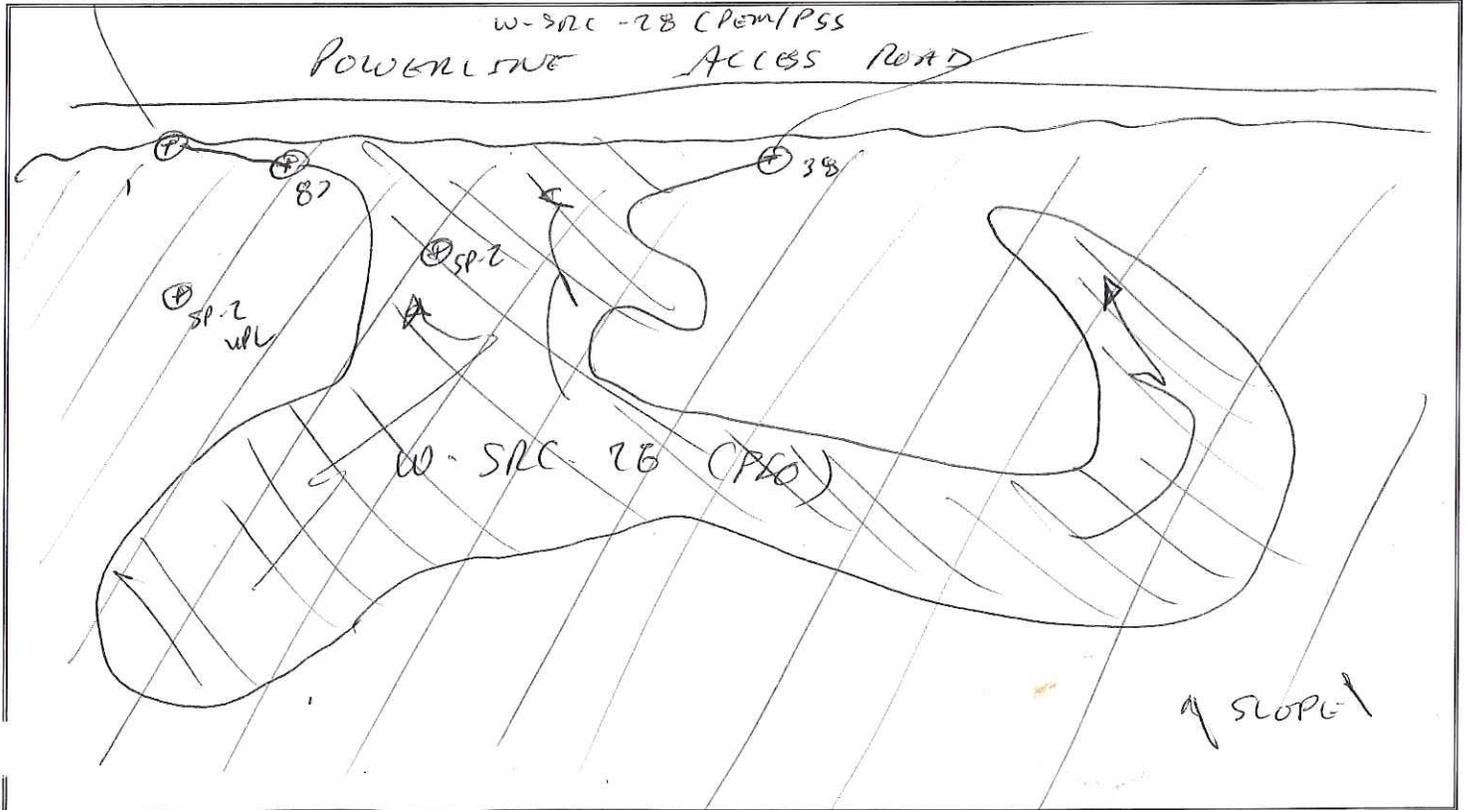
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns
<input checked="" type="checkbox"/> Water Marks (B1)	<input checked="" 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 checked="" type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" 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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 44 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: NO APPARENT INLET OR OUTPUT - ISOLATED.

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SRL-28 SP-2

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SASSAPARILL (SASSAPARILLA ALBIDUUM)	80 - T	Y	FACU
2	SWEET BIRCH (BETULA LENTHA)	20 - T	Y	FACU
3	WETLAND HAILOC (HAMAMELES VERGENSANA)	20 - S	Y	FACU
4	CINNAMON FERN (OSMUNDA CINNAMOMUM)	60 - H	Y	FACU
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: WETLAND VEG. (HERB.) IS PRESENT AND DOMINANT @ SAMPLE PT. (50/20).				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 4	10YR 2/1 100	- / - / - / -	-	SILT
4 - 11+	7.5YR 3/2 100	- / - / - / -	-	SILT LOAM
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: WETLAND SOILS ARE NOT PRESENT @ SAMPLE PT.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth of: — (in)	
Water Table Present in Pit?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth of: — (in)	
Saturated Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth to: — (in)	
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: NO WETLAND HYDROLOGY NOTED @ SAMPLE PT.			

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

For use in all wetland classifications found within Pennsylvania except those found within the banks of a watercourse.

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)	
A115	PTE ALLEGHENY TUNNEL	07.11.12	N/A	W·SRC·28		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
				APPARENTLY ISOLATED.		

1. Wetland Zone of Influence Condition Index

Wetland Zone of Influence (300 foot area around AA perimeter)	Condition Category																											
	Optimal				Suboptimal				Marginal				Poor															
	Tree stratum (dbh > 3 inches) present, with > 60% tree canopy cover. Any areas comprised of wetlands or stream channels are also classified as optimal.				High Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory				Low Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and a maintained understory or recent timber harvesting cutover (< 5 years)				High Marginal: Non-maintained, dense herbaceous vegetation, with either a shrub or tree layer (dbh>3 inches) with <30% tree canopy cover.				Low Marginal: Non-maintained, dense herbaceous vegetation, ZOI areas lacking shrub and tree stratum or if tree stratum present, has <30% canopy cover with a maintained understory.				High Poor: Lawns, mowed and maintained areas, nurseries, no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.				Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.			
SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1								

1. Identify all applicable Condition Category areas within the wetland zone of influence using the descriptors above.
 2. Estimate the % area within each condition category. Calculators are provided for you below.
 3. Enter the % ZOI Area in decimal form (0.00) and Score for each category in the blocks below.

Scoring:	% ZOI Area >	0.70	0.30							100.00%	CI
	Score >	0	15							3.7	0.00

Comments: LOCATED ALONG LARGE POWERLINE ROW. NO APPARENT INLET/OUTLET.

0.44



W-SRC-28 SP-1 overview, facing east.



W-SRC-28 SP-1 overview, facing south.



W-SRC-28 SP-1 wetland soil test pit.



W-SRC-28 SP-1 upland soil test pit.



W-SRC-28 SP-2 overview, facing east.



W-SRC-28 SP-2 overview, facing west.



W-SRC-28 SP-2 wetland soil test pit.



W-SRC-28 SP-2 upland soil test pit.

WETLAND W-SRC-29

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07.12.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SRC, LLC		State: PA
Cowardin Classification (Percentage): <i>Form/BS/Prot: ✓ 7 58/39/3</i>		Wetland ID #: W-SRC-29 SP-1
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?		
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?		
NWI Classification: (if applicable)		
Landform/Geomorphic Setting (Check All That Apply)		
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace	
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel	
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain	
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan	
<input checked="" type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta	
<input type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -	
Slope: ~5 %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:	Datum:	
No. of Flags: 52	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A	1 - NE 3 - WETLAND PIT 2 - SW 4 - UPLAND PIT	
Remarks: APPARENTLY ISOLATED - NO INLET/OUTLET.		

SUMMARY OF FINDINGS

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

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W. SEC. 29 SP-1

VEGETATION

#	Tree Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet		
1					# of Dominant Species that are OBL, FACW, or FAC?	4 (A)	
2					Total # of Dominant Species across all Strata?	4 (B)	
3					% of Dominant Species that are OBL, FACW, or FAC?	100 (A/B)	
4					Prevalence Index Worksheet		
5					Total % Cover of:	Mult. by:	
6					OBL species	1 =	
				= Total Cover			
				FACW species	2 =		
				FAC species	3 =		
#	Sapling Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	FACU species	4 =	
1					UPL species	5 =	
2					Coln. Totals:	(A) (B)	
3					Prevalence Index =	B/A =	
4					Hydrophytic Vegetation Indicators		
5							
				= Total Cover			
				Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
#	Shrub Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1					Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4					Vegetation Strata Definitions		
5							
				= Total Cover			
				Tree – Woody plant 20+ feet high & 3+ in. dbh			
				Sapling – Woody plant 20+ feet high & <3 in. dbh			
				Shrub – Woody plant ~3-20 feet high			
				Woody Vine – All woody vines			
#	Herb Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1	TASSOCK SEDGE (CAREX AQUATILIS)	30	Y	OBL	Remarks: NOTED SPAGNUM MOSS FOR PFO PORTION, CANOPY @ 90% - PROVIDED BY WHITE OAK & RED MAPLE OUTSIDE OF BOUNDARY. FOR USACE REG. SUPPLEMENT, CANOPY 170% PROVIDED BY THESE TREES. OUTSIDE OF WETLAND BOUND CAN BE CONSIDERED PFO RESOURCE.		
2	JUNCUS CANADENSIS	10	N	OBL			
3	SOFT RUSH (JUNCUS EFFUSUS)	80	N	FACW			
4	ARROW WOOD (VIBURNUM DENTATUM)	20	Y	FAC			
5	CINNABARON FERN (OSMUNDA CSTRAM.)	25	Y	FACW			
6	CATTAILS (TYPHA ANGLUSTROLOEA)	5	N	OBL			
7	CAREX FOLLISUANTA	NOTED	N	OBL			
8							
9							
10							
				= Total Cover			
#	Woody Vine Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator			
1	SWAMP DEWBERRY (RUBUS HESPERUS)	40	Y	FACW			
2		40					
				= Total Cover			

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W. SRC. 29 SP-1

SOILS

Soil Survey Map Unit Name/Symbol: - Drainage Class: -
 Taxonomy: - Field Observations Confirm Mapped Type: Yes No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 4	1.5R 2/1 100	- / - / - / -	-	SILT
4 - 12+	2.5Y 3/1 1 GS	7.5YR 3/4 1 5 1 RM 1 PL	FEW, DULL	SILT LOAM
-	1	1 / 1 / 1		
-	1	1 / 1 / 1		
-	1	1 / 1 / 1		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present? Yes No

Remarks:

WETLAND ID #:

W-SRC-29 SP-1

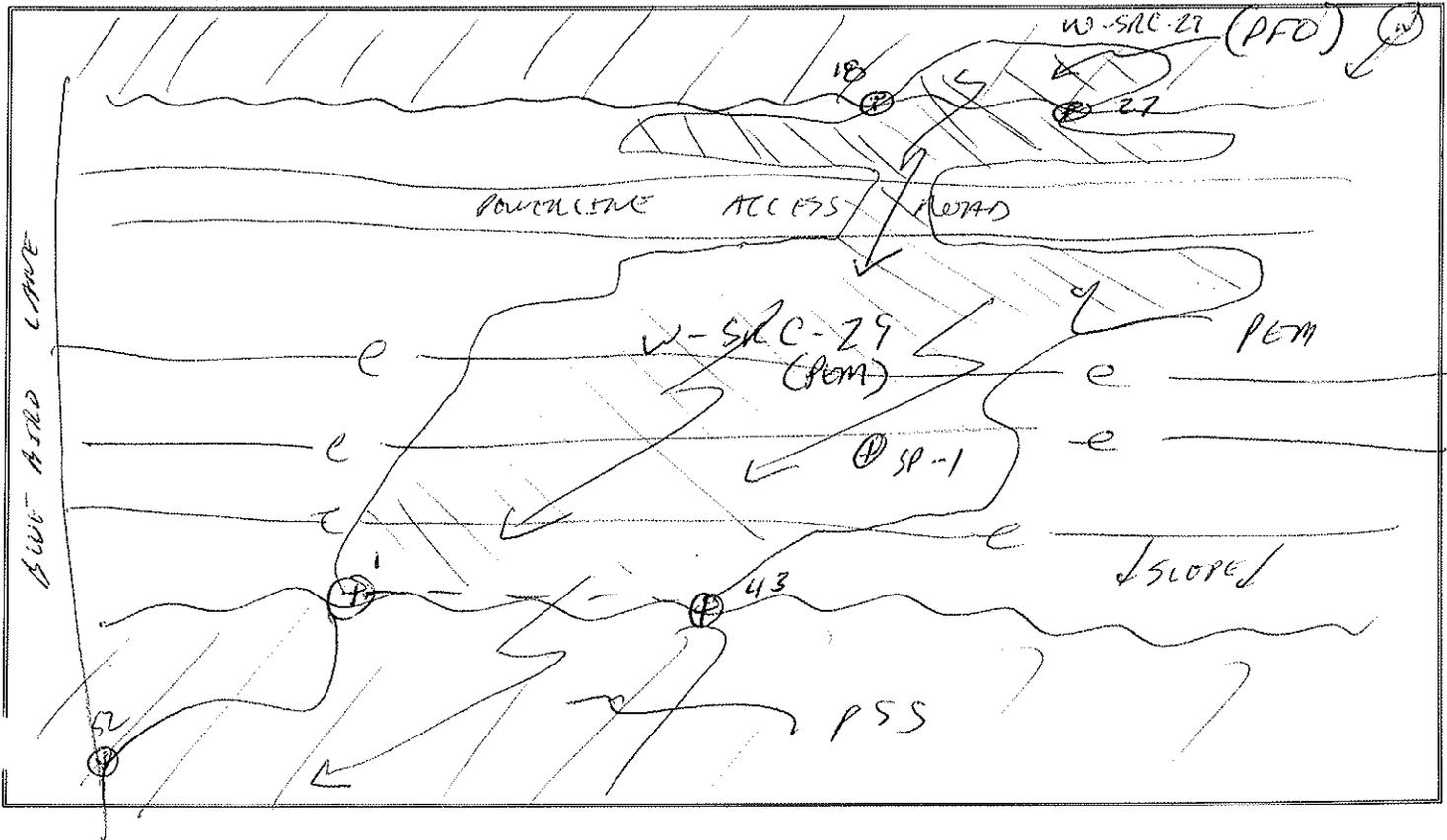
HYDROLOGY

WETLAND HYDROLOGY INDICATORS	
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: APPARENTLY ISOLATED

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W.S.R.C. 29 SP-1

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	WITCH HAZEL (HAMAMELIS VIRGINIANA)	65 - S	Y	FACU
2	RED OAK (QUERCUS RUBRA)	25 - S	Y	FACU
3	SWEET BEECH (BETULA LONATA)	10 - S	N	FACU
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND VEG. IS NOT PRESENT OR DOMINANT @ SAMPLE PT.				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 1	- / -	- / - / - / -	-	-
1 - 2	5YR 2.5/1 100	- / - / - / -	-	LOAM
2 - 12+	10YR 4/1 100	- / - / - / -	-	SILT LOAM
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No
Remarks: WETLAND SOILS NOT PRESENT @ SAMPLE PT.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND HYDROLOGY IS NOT PRESENT @ SAMPLE PT.			

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07.12.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SAC, NCE		State: PA
Cowardin Classification (Percentage): <i>PEM/PSS/PFO</i> () 58/39/.3		Wetland ID #: W-SRC-29 51-2
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?		
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?		
NWI Classification: (if applicable)		
Landform/Geomorphic Setting (Check All That Apply)		
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace	
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel	
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain	
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan	
<input checked="" type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta	
<input type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -	
Slope: 5-10%	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:	Datum:	
No. of Flags: 52	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A	1- NW	3- WETLAND PBT
	2- SW	4-
Remarks: APPARENTLY ISOLATED. NO NOTED INLET/OUTLET.		

SUMMARY OF FINDINGS

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

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W.SRC-29 SP-2
SOILS

Soil Survey Map Unit Name/Symbol: -	Drainage Class: -
Taxonomy: -	Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 4	10YR 2/1 -	- / - / - / -	-	SILT CLAY
4 - 12+	10YR 3/1 -	- / - / - / -	-	SANDY LOAM
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input checked="" type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input checked="" type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Remarks:

WETLAND ID #: W-SRC-29 SP.2

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

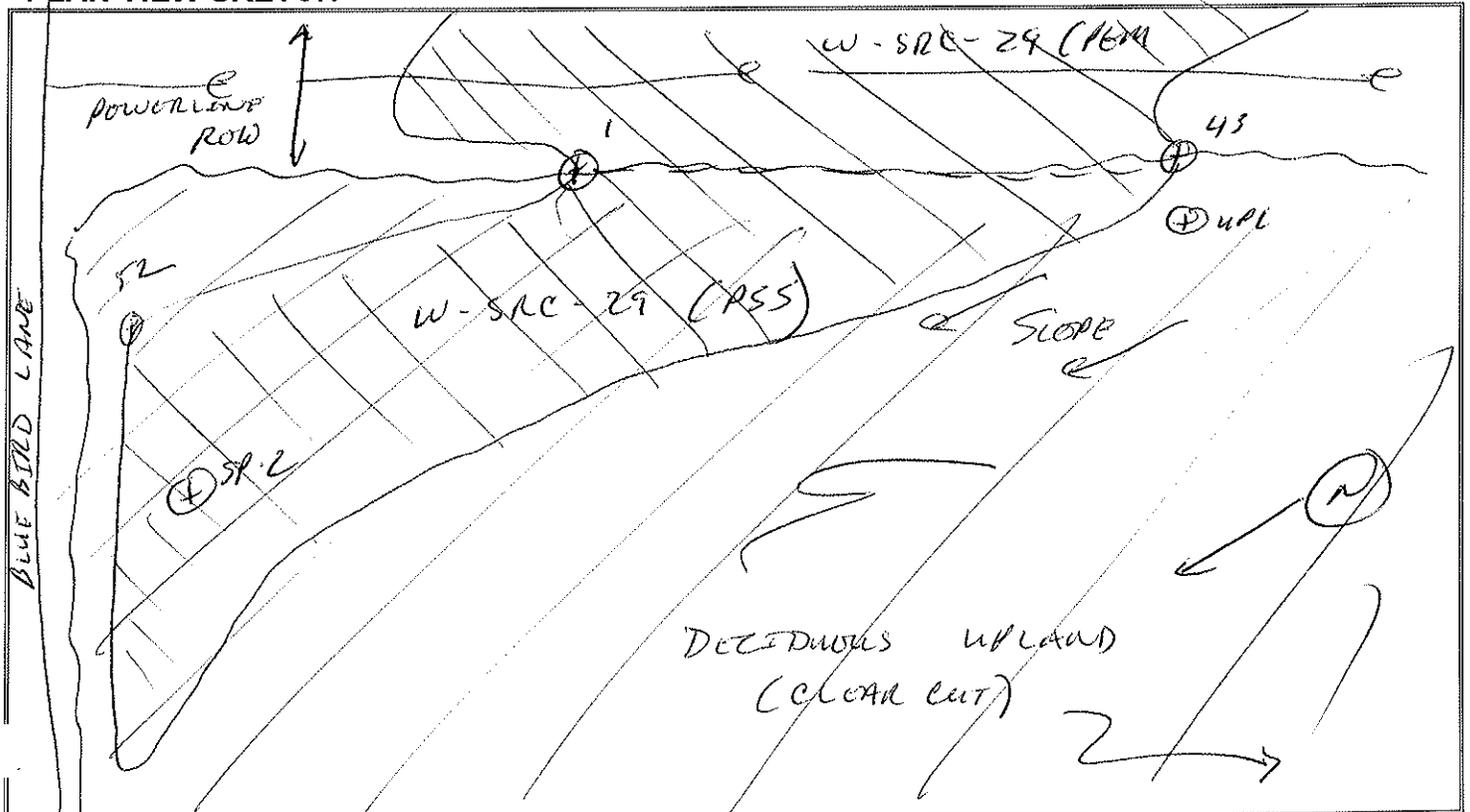
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<input checked="" 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 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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: APPARENTLY ISOLATED.

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

VEGETATION

W. SRC. 29 SP. 2 (USE W. SRC. 29 SP. 1)

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	WITCH HAZEL (HAMAMULIS VERGENEANA)	65 - 5	Y	FACU
2	RED OAK (QUERCUS RUBRA)	25 - 5	Y	FACU
3	BURST BIRCH (BETULA LINTA)	10 - 5	N	FACU
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND VEG. IS NOT PRESENT OR DOMINANT @ SAMPLE PT.				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 1	- 1 -	- 1 - 1 - 1 -	-	-
1 - 2	5YR 6.5/1 100	- 1 - 1 - 1 -	-	LOAM
2 - 12+	10YR 4/1 100	- 1 - 1 - 1 -	-	SILT CLAY
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND SOILS ARE NOT PRESENT @ SAMPLE PT.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS		
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)	
<input 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	
<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	
<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	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs	
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)	
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available	
FIELD OBSERVATIONS		
Surface Water Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth to: ✓ (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Remarks: WETLAND HYDROLOGY NOT PRESENT @ SAMPLE PT.		



W-SRC-29 SP-1 overview, facing northeast.



W-SRC-29 SP-1 overview, facing southwest.



W-SRC-29 SP-1 wetland soil test pit.



W-SRC-29 SP-1 upland soil test pit.



W-SRC-29 SP-2 overview, facing northwest.



W-SRC-29 SP-2 overview, facing southwest.



W-SRC-29 SP-2 wetland soil test pit.



W-SRC-29 SP-2 upland soil test pit.

WETLAND W-SRC-30

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07.12.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SAC, KLE		State: PA
Cowardin Classification (Percentage): PEM (100%)		Wetland ID #: W-SAC-30
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are "Normal Circumstances" present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input checked="" type="checkbox"/> Soils, or <input checked="" type="checkbox"/> Hydrology significantly disturbed (Atypical)? MAN MADE POND		
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?		
NWI Classification: (if applicable)		
Landform/Geomorphic Setting (Check All That Apply)		
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace	
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel	
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain	
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan	
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta	
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other --	
Slope: 10 %	Land Relief: <input type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:	Datum:	
No. of Flags: 4	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A	1- N	3- WETLAND PIT
	2- S	4- UPLAND PIT
Remarks: ASSOC. W/ STREAM S-SAC-37 - JURISDICTIONAL.		

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: AERIAL DROUGHT CONDITIONS NOTED @ TIME OF SURVEY			

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W SAC-80

VEGETATION

#	Tree Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet		
1	_____	_____	_____	_____	# of Dominant Species that are OBL, FACW, or FAC?	2 (A)	
2					Total # of Dominant Species across all Strata?	2 (B)	
3					% of Dominant Species that are OBL, FACW, or FAC?	100 (A/B)	
4					Prevalence Index Worksheet		
5					Total % Cover of:	Mult. by:	
6					OBL species	1 =	
	= Total Cover				FACW species	2 =	
					FAC species	3 =	
#	Sapling Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	FACU species	4 =	
1	_____	_____	_____	_____	UPL species	5 =	
2					Coln. Totals:	(A)	(B)
3					Prevalence Index =	B/A =	
4					Hydrophytic Vegetation Indicators		
5					= Total Cover		
#	Shrub Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1	_____	_____	_____	_____	Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4					Vegetation Strata Definitions		
5					= Total Cover		
					Sapling – Woody plant 20+ feet high & <3 in. dbh		
					Shrub – Woody plant ~3-20 feet high		
#	Herb Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Woody Vine – All woody vines		
1	WOOL GRASS (<i>SCIRPUS (2) PENNANS</i>)	5	N	OBL	Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2	SOFT BUSH (<i>JUNCEUS EFFRUSUS</i>)	15	Y	FACW			
3	RED CANNON (<i>DIANTHUS ARABIS</i>)	60	Y	FACW	Remarks:		
4							
5							
6							
7							
8							
9							
10							
	= Total Cover				80		
#	Woody Vine Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1							
2							
	= Total Cover						

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W. SAC-30

SOILS

Soil Survey Map Unit Name/Symbol: - Drainage Class: -
 Taxonomy: - Field Observations Confirm Mapped Type: Yes No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 6	10YR 4/4 100	- / - / - / -	-	50% LOAMY
6 - 10	10YR 4/2 70	7.5YR 4/6 30 / RM / M	Common, Distinct	50% LOAMY
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains
 Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

- Histosol (A1)
- Histic Epipedon (A2)
- Sulfidic Odor (A4)
- Stratified Layers (A5)
- 2 cm of Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8)
- Thin Dark Surface (S9)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12)
- Umbric Surface (F13)
- Piedmont Floodplain Soils (F19)
- Other

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

- 2 cm Muck (A10)
- Piedmont Floodplain Soils (F19)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other

Hydric Soil Present? Yes No

Remarks: Refusal @ 10" Due to Rock.

WETLAND ID #: W-SRC-30

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

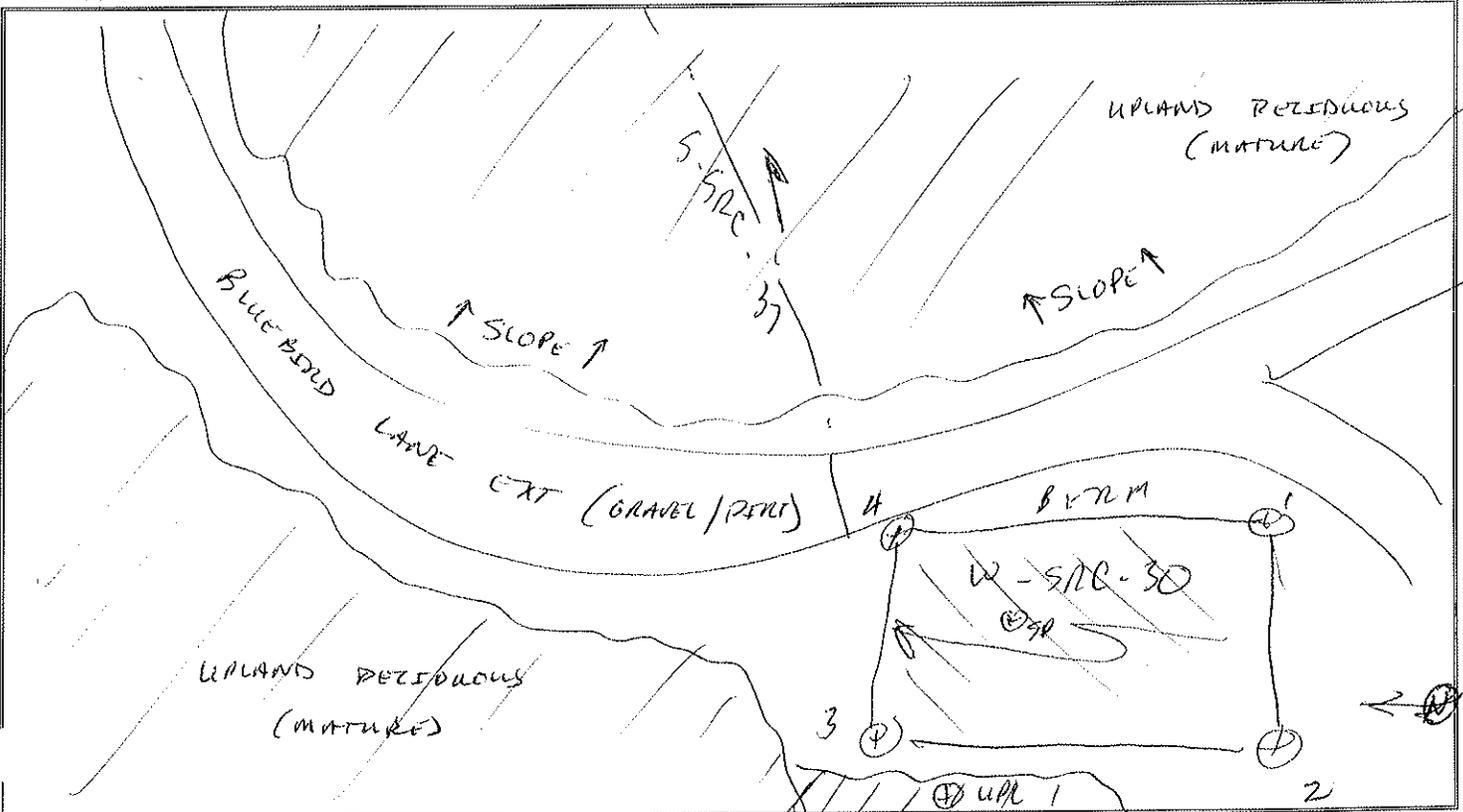
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<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 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 checked="" 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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 6 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: CONNECTED VSA STREAM S-SRC-37.

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

2 W. SAC. 30

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SWEET BIRCH (BETULA LENTHA)	60 - 5	Y	FACU
2	W. LAKE CHERRY (PRUNUS SCROPIFINA)	20 - 5	Y	FACU
3	SHAD BARK HEDYCLONY (CARLYA OVATA)	20 - 5	Y	UPL
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND VEG. IS NOT PRESENT OR DOMINANT @ SAMPLE PT.				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 1	- 1 -	- 1 - 1 - 1 -	-	-
1 - 5	7.5R 4/4 100	- 1 - 1 - 1 -	-	SST common Rock
	1	1 1 1		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydic Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: ROCK @ 5" DUE TO ROCK. WETLAND SOILS NOT PRESENT.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: — (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND HYDROLOGY NOT PRESENT @ SAMPLE PT.			

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

For use in all wetland classifications found within Pennsylvania except those found within the banks of a watercourse.

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)	
A11J	PTR ALLEGHENY TUNNEL	07.12.12	N/A	W.SRC.30		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
SRC, KLF				JURISDICTION/AC.		

1. Wetland Zone of Influence Condition Index

Wetland Zone of Influence (300 foot area around AA perimeter)	Condition Category																					
	Optimal				Suboptimal				Marginal				Poor									
	Tree stratum (dbh > 3 inches) present, with > 60% tree canopy cover. Any areas comprised of wetlands or stream channels are also classified as optimal.				High Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory				Low Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and a maintained understory or recent timber harvesting cutover (< 5 years)				High Marginal: Non-maintained, dense herbaceous vegetation, with either a shrub or tree layer (dbh>3 inches) with <30% tree canopy cover.				Low Marginal: Non-maintained, dense herbaceous vegetation, ZOI areas lacking shrub and tree stratum or if tree stratum present, has <30% canopy cover with a maintained understory.		High Poor: Lawns, mowed and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.		Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.	
					SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

1. Identify all applicable Condition Category areas within the wetland zone of influence using the descriptors above.
2. Estimate the % area within each condition category. Calculators are provided for you below.
3. Enter the % ZOI Area in decimal form (0.00) and Score for each category in the blocks below.

Scoring:	% ZOI Area >	0.75	0.25										1.00 0%	CI
	Score >	13	5										11 0%	0.00

0.55

Comments:

MAN-MADE POND/TRAP ASSOC. W/ S.SRC.3T.



W-SRC-30 overview, facing north.



W-SRC-30 overview, facing south.



W-SRC-30 wetland soil test pit.



W-SRC-30 upland soil test pit.

WETLAND W-SRC-31

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07-12-2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SRC, KLE		State: PA
Cowardin Classification (Percentage): P+M (100)		Wetland ID #: W SAC-31
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?		
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?		
NWI Classification: - (if applicable)		
Landform/Geomorphic Setting (Check All That Apply)		
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace	
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel	
<input checked="" type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain	
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan	
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta	
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -	
Slope: 10 %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:	Datum:	
No. of Flags: 4	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. n/a	1 - NE 3 - WETLANDS PFT 2 - SE 4 - UPLAND PFT	
Remarks: ADJ. TO STREAM S-SAC-30 - JURISDICTIONAL		

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: NEAR DROUGHT CONDITIONS NOTED @ TIME OF SURVEY.			

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-SRC-31

SOILS

Soil Survey Map Unit Name/Symbol: -	Drainage Class: -
Taxonomy: -	Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 1	- / -	- / - / - / -	-	-
1 - 4	7.5YR 3/1 100	- / - / - / -	-	SILT CLAY
4 - 10	10YR 3/2 100	- / - / - / -	-	SILT CLAY
-	1	1 / 1 / 1		
-	1	1 / 1 / 1		
-	1	1 / 1 / 1		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present? Yes No

Remarks: REFUSAL @ 10" Due to Rock

WETLAND ID #: *W-SRC-31*

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

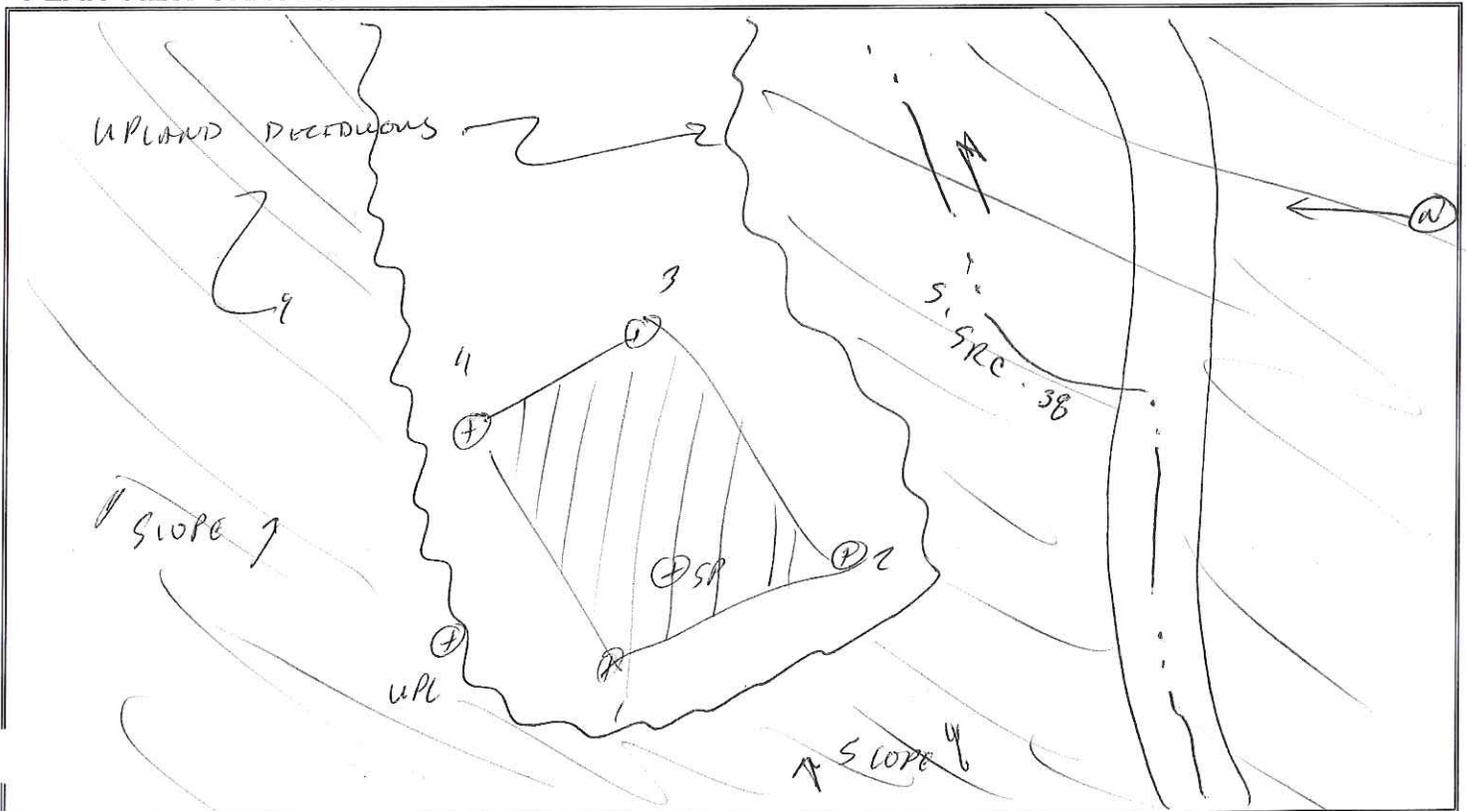
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: <i>—</i> (in)
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: <i>8</i> (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: <i>0</i> (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: *ADJ TO S-SRC-38 - JURISDICTIONAL*

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

BD - SAC - 31

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SUGAR MAPLE (ACER SACCARUM)	100 - 7	y	FACU
2				
3				
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND VEG IS NOT PRESENT OR DOMINANT @ SAMPLE PT.				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- 1 -	- 1 - 1 - 1 -	-	-
2 - 10	WYR 4/4 100	- 1 - 1 - 1 -	-	SELF LOAM
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydic Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: REFUSAL @ 10" DUE TO TREE ROOTS. WETLAND SOILS NOT PRESENT.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND HYDROLOGY IS NOT PRESENT @ SAMPLE PT.			

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

For use in all wetland classifications found within Pennsylvania except those found within the banks of a watercourse.

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)	
A11J	PIC ALLEGHENY TUNNEL	07.12.12	N/A	W.SRC-31		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
SILC, KLE				JURISP. RETURN.		

1. Wetland Zone of Influence Condition Index

Wetland Zone of Influence (300 foot area around AA perimeter)	Condition Category							
	Optimal		Suboptimal		Marginal		Poor	
Tree stratum (dbh > 3 inches) present, with > 60% tree canopy cover. Any areas comprised of wetlands or stream channels are also classified as optimal.	High Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory	Low Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and a maintained understory or recent timber harvesting cutover (< 5 years)	High Marginal: Non-maintained, dense herbaceous vegetation, with either a shrub or tree layer (dbh>3 inches) with <30% tree canopy cover.	Low Marginal: Non-maintained, dense herbaceous vegetation, ZOI areas lacking shrub and tree stratum or if tree stratum present, has <30% canopy cover with a maintained understory.	High Poor: Lawns, mowed and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.		

SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
-------	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

1. Identify all applicable Condition Category areas within the wetland zone of influence using the descriptors above.
2. Estimate the % area within each condition category. Calculators are provided for you below.
3. Enter the % ZOI Area in decimal form (0.00) and Score for each category in the blocks below.

Scoring:	% ZOI Area >	0.80	0.20					1.00 0%	CI
	Score >	16	8					14.4 0.00	0.00

Comments: ADJ. TO STREAM S.SAC-38.

0.72



W-SRC-31 overview, facing northeast.



W-SRC-31 overview, facing southeast.



W-SRC-31 wetland soil test pit.



W-SRC-31 upland soil test pit.

WETLAND W-SRC-32

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07.16.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SAC, KLE		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W SAC-32	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input checked="" type="checkbox"/> Soils, or <input checked="" type="checkbox"/> Hydrology significantly disturbed (Atypical)? END OF OLD LOGGING ROAD			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: - (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel		
<input checked="" type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: 5-10 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 4		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos.		1 - W 3 - UPLAND SET 2 - E 4 - UPLAND SET	
Remarks: RECEIVES FLOW FROM OLD LOGGING ROAD. CONNECTED TO S-SAC-48			

SUMMARY OF FINDINGS

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

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W - SRC - 32
 SOILS

Soil Survey Map Unit Name/Symbol: - Drainage Class: -
 Taxonomy: - Field Observations Confirm Mapped Type: Yes No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 3	1 -	1 - 1 - 1 -	-	-
3 - 10	2.5Y 3/1 1 100	1 - 1 - 1 -	-	SILT LOAM
10 - 13 +	10YR 5/1 1 95	7.5YR 3/4 1 5 1 RM 1 PL	FEW, BRIGHT	CLAY LOAM
-	1	1 1 1		
-	1	1 1 1		
-	1	1 1 1		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input checked="" type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input checked="" type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present? Yes No
 Remarks:

WETLAND ID #: W. SRC - 32

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

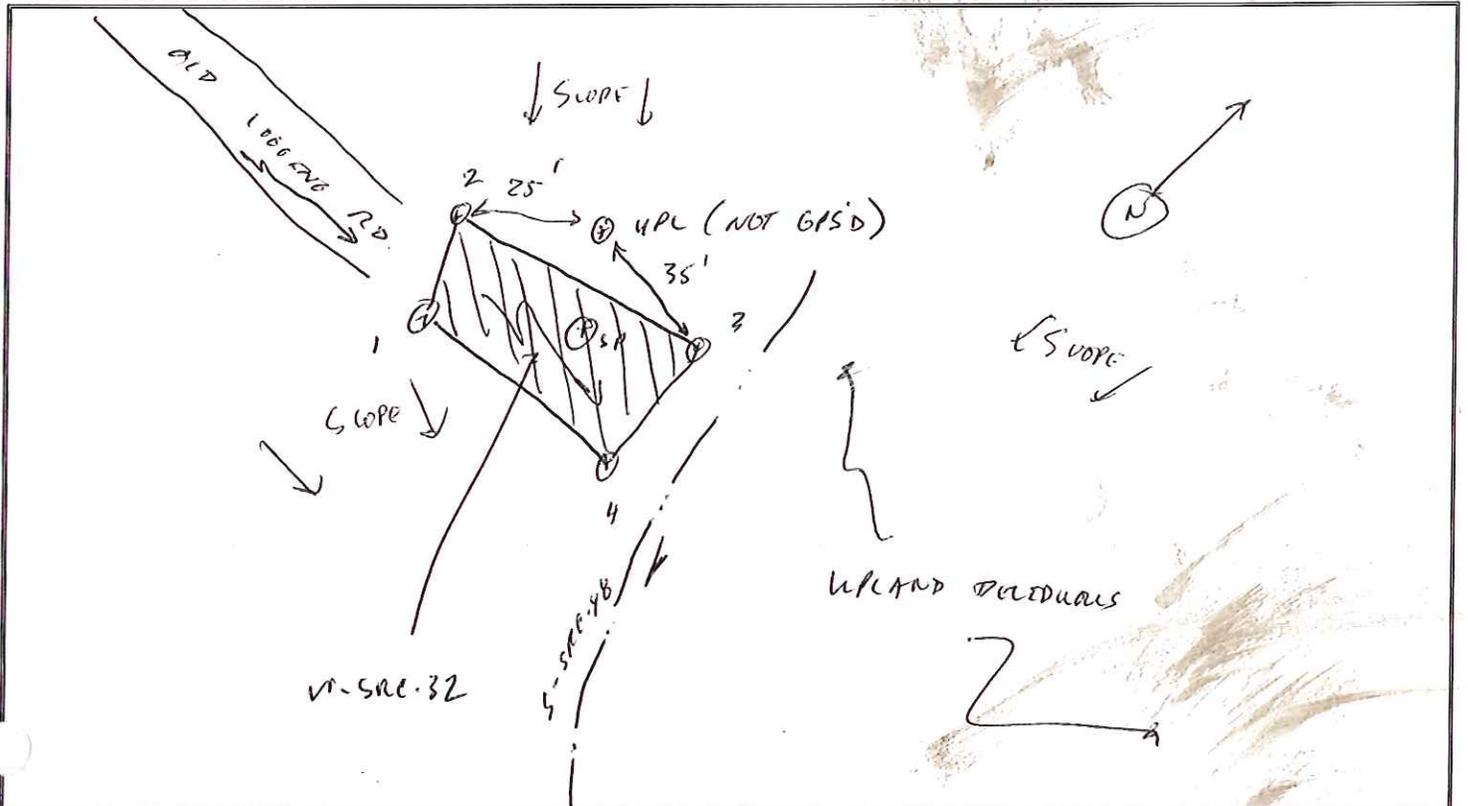
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<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 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 checked="" 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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 1 (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: 2 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: CONNECTED TO S-SRC-48

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

VEGETATION

W. SRC. 32

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SILVER MAPLE (ACER SACCHARINUM)	100 - T	Y	FACW
2	SPIREBUSH (LENDAEA BENZOIN)	60 - S	Y	FAC
3	JEWELWOOD (IMPATIENS CAPENSIS)	20 - M	Y	FACW
4				
5				
6				
		100	= Total Cover	
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: WETLAND VEG. IS PRESENT AND DOMINANT @ SAMPLE PT.				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 1	- / -	- / - / - / -	-	-
1 - 4	10YR 3/1 / 100	- / - / - / -	-	SECT LOAM
4 - 10	10YR 5/4 / 100	- / - / - / -	-	SECT LOAM
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: WETLAND SOIL CHARACTERISTICS NOT PRESENT @ SAMPLE.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Aquatic Plants (B14)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
<input type="checkbox"/> Other			
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth of: - (in)	
Water Table Present in Pit?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth of: - (in)	
Saturated Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth to: - (in)	
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: WETLAND HYDROLOGY NOT PRESENT @ SAMPLE PT.			



W-SRC-32 overview, facing east.



W-SRC-32 overview, facing west.



W-SRC-32 wetland soil test pit.



W-SRC-32 upland soil test pit.

WETLAND W-SRC-33

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07.17.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, ILLB		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W SRC-33	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: 5 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 4		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - S 3 - WETLAND PIT	
		2 - N 4 - UPLAND PIT	
Remarks: ASSOC. W/ STREAMS 5-SRC-56, 58, & 59 - JURISDICTIONAL			

SUMMARY OF FINDINGS

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

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-SAC-33

VEGETATION

#	Tree Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet	
					# of Dominant Species that are OBL, FACW, or FAC?	
1	RED MAPLE (ACER RUBRUM)	60	y	FAC	6	(A)
2	GREEN ASH (FRAXINUS PENNSYLV.)	40	y	FACW	6	(B)
3					100	(A/B)
4					Prevalence Index Worksheet	
5					Total % Cover of:	Mult. by:
6					OBL species	1 =
		100		= Total Cover	FACW species	2 =
					FAC species	3 =
#	Sapling Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	FACU species	4 =
1	RED MAPLE (ACER RUBRUM)	20	y	FAC	UPL species	5 =
2					Coln. Totals:	(A) (B)
3					Prevalence Index =	B/A =
4					Hydrophytic Vegetation Indicators	
					Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		20		= Total Cover	Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
#	Shrub Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input type="checkbox"/> No
1					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3					Vegetation Strata Definitions	
4					Tree – Woody plant 20+ feet high & 3+ in. dbh	
5					Sapling – Woody plant 20+ feet high & <3 in. dbh	
					Shrub – Woody plant ~3-20 feet high	
#	Herb Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Woody Vine – All woody vines	
1	CANYON CROWE	50	y	OBL	Hydrophytic Vegetation Present?	
2	FRAXINUS (AMERICAN HICKORY)	30	y	FACW	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3	FALSE ACACIA (ROSMARINIA CYLINDRICA)	20	y	FACW	Remarks:	
4					CANOPY @ ~100% Provided By AM. BASSWOOD OUTSIDE OF BOUNDARY	
5						
6						
7						
8						
9						
10						
		ND		= Total Cover		
#	Woody Vine Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
					= Total Cover	

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-520-33
SOILS

Soil Survey Map Unit Name/Symbol: - Drainage Class: -
 Taxonomy: - Field Observations Confirm Mapped Type: Yes No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2.5	- / -	- / - / - / -	-	-
2.5 - 5	10YR 4/4 / 100	- / - / - / -	-	SOFT LOAM
5 - 12	10YR 3/2 / 90	7.5YR 3/4 / 10 / RM / PL	FEW, BASED	CLAY LOAM w/ SAND
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present? Yes No

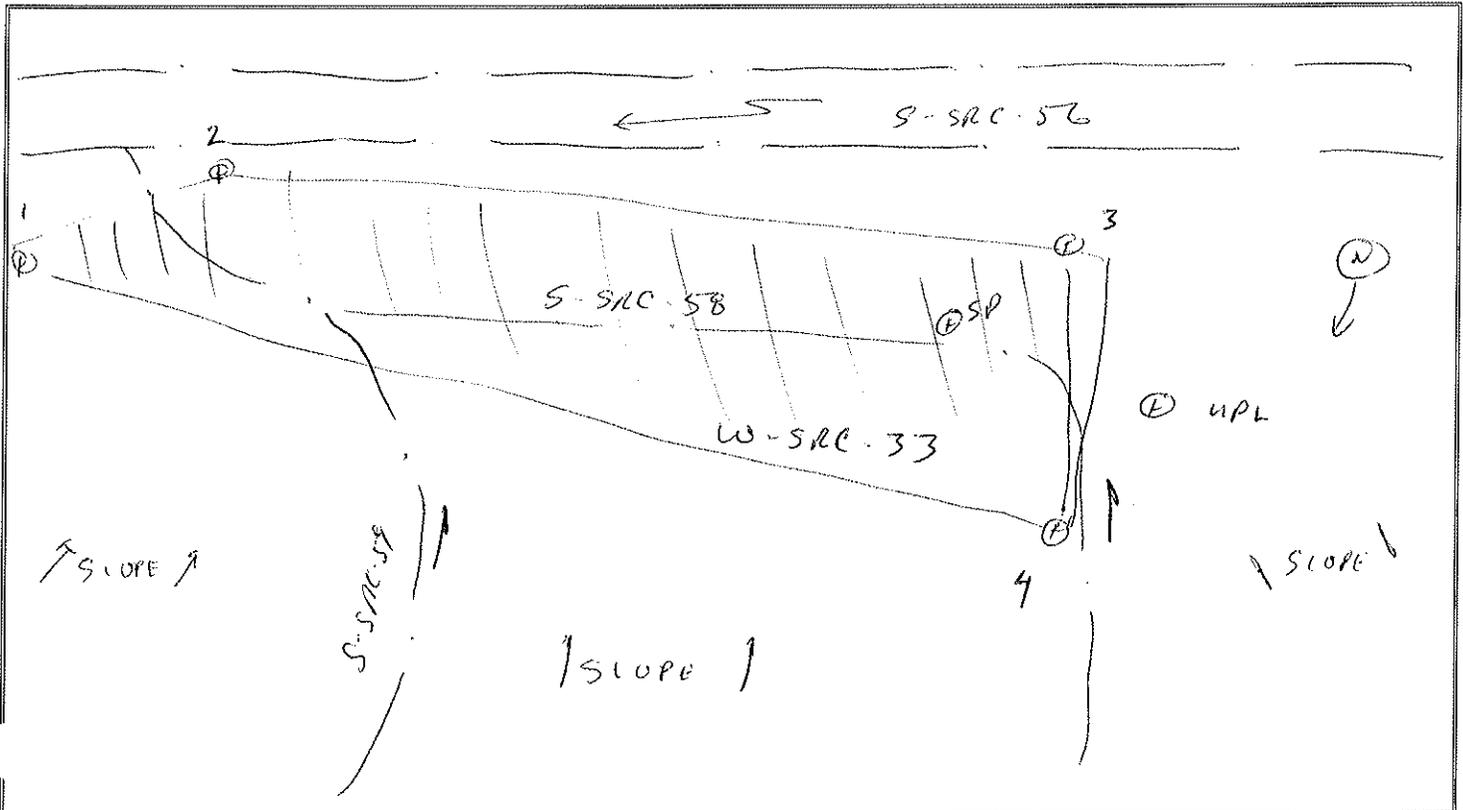
Remarks:

WETLAND ID #: W - SAC - 33

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns	<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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 2 (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: ASSOC. w/ S-SAC-56, 58, & 59 - JURISDICTIONAL.			

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point
 2 W-410-33

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	Am. Sycamore (FRAXUS GRANDIFOLIA)	50	Y	FACU
2	WITCH HAZEL (HAMAMELIS VIRGINIANA)	35	Y	FACU
3	RED MAPLE (ACER RUBRUM)	15	N	FAC
4				
5				
6				
			= Total Cover	
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: wetland W-410-33 present and dominant @ sample Pt. (50/20).				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 3	- / -	- / - / - / -	-	-
3 - 7	7.5YR 3/2 / 100	- / - / - / -	-	Silt loam
7 - 12+	7.5YR 3/3 / 100	- / - / - / -	-	Clay loam
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: wetland soil characteristics not present @ sample Pt.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)	<input type="checkbox"/> Other
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: wetland hydrology is not present @ sample Pt.			



W-SRC-33 overview, facing north.



W-SRC-33 overview, facing south.



W-SRC-33 wetland soil test pit.



W-SRC-33 upland soil test pit.

WETLAND W-SRC-34

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07.17.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, LLC		State: PA	
Cowardin Classification (Percentage): PFD (100)		Wetland ID #: W-SRC-34	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: - (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: 5 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 4		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1- S 3- WETLAND PFT 2- N 4- UPLAND PFT	
Remarks: CONNECTED TO S-SRC-56 - JURISDICTIONAL			

SUMMARY OF FINDINGS

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

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-SRC-34

SOILS

Soil Survey Map Unit Name/Symbol: -	Drainage Class: -
Taxonomy: -	Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 5	7.5YR 3/3 / 100	- / - / - / -	-	SILT loam / SAND
5 - 12+	7.5YR 3/2 / 80	10YR 4/6 / 20 / RM / M	FEW, DISTINCT	SILT loam
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present? Yes No

Remarks:

WETLAND ID #:

W-SRC-34

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

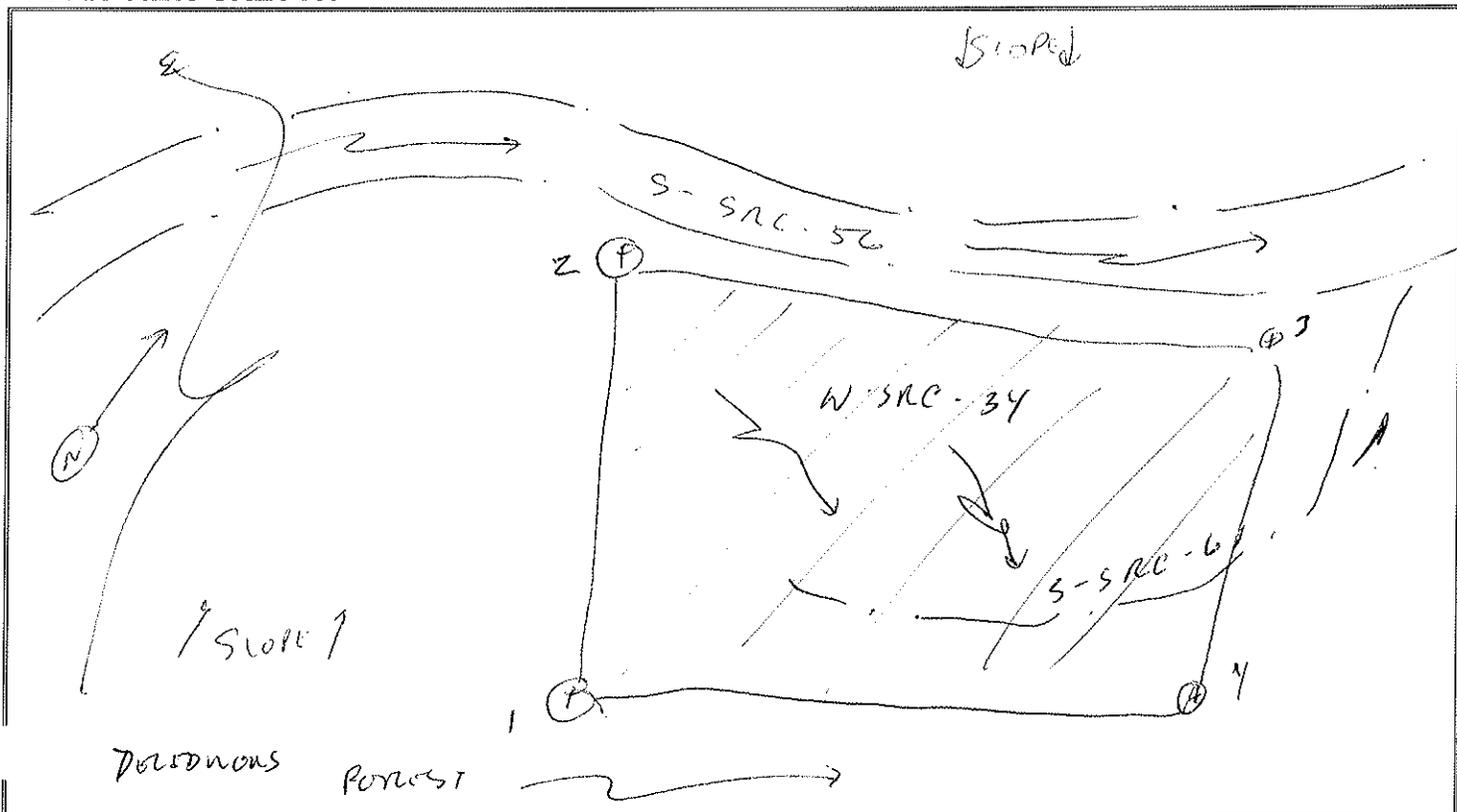
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<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 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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 2 (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: ASSOC. W/ S-SRC-56 AND 61 - JURISDICTIONAL

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SRC-34

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	TALEO UPLAND (LEUCODENDRON TULIPIFOLIA)	60 - 5	Y	FACU
2	WITCH HAZEL (HAMAMISLES VIRGINIANA)	30 - 5	Y	FACU
3	YELLOW BIRCH	10 - 5	N	FAC
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND VEG. IS PRESENT BUT NOT DOMINANT @ SAMPLE SITE				

SOILS

Soil Survey Map Unit Name/Symbol:			Drainage Class:	
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- 1 -	- 1 - 1 - 1 -	-	-
2 - 8	10YR 3/3 1 10D	- 1 - 1 - 1 -	-	SILT CLAY W/ SAND
	1	1 1 1		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND SOILS NOT NOTED @ SAMPLE SITE. FOCUS ON 8" DUE TO ROOTS.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND HYDROLOGY NOT NOTED @ SAMPLE SITE.			

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

For use in all wetland classifications found within Pennsylvania except those found within the banks of a watercourse.

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)
A115	PTC ALLEGHENY TUNNEL	07.17.12	N/A	W.SRC.34	

Name(s) of Evaluator(s)	Lat (dd)	Long (dd)	Notes:
SAC, KLF			JURISDICTIONAL.

1. Wetland Zone of Influence Condition Index

Wetland Zone of Influence (300 foot area around AA perimeter)	Condition Category																	
	Optimal				Suboptimal				Marginal				Poor					
Tree stratum (dbh > 3 inches) present, with > 60% tree canopy cover. Any areas comprised of wetlands or stream channels are also classified as optimal.	High Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory				Low Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and a maintained understory or recent timber harvesting cutover (< 5 years)				High Marginal: Non-maintained, dense herbaceous vegetation, with either a shrub or tree layer (dbh>3 inches) with <30% tree canopy cover.				Low Marginal: Non-maintained, dense herbaceous vegetation, ZOI areas lacking shrub and tree stratum or if tree stratum present, has <30% canopy cover with a maintained understory.		High Poor: Lawns, mowed and maintained areas, nurseries, no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.		Low Poor: Impervious surfaces, mine spoil lands, deruded surfaces, row crops, active feed lots, trails, or other comparable conditions.	

SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
-------	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

1. Identify all applicable Condition Category areas within the wetland zone of influence using the descriptors above.
2. Estimate the % area within each condition category. Calculators are provided for you below.
3. Enter the % ZOI Area in decimal form (0.00) and Score for each category in the blocks below.

Scoring:	% ZOI Area >	1.00							100.00%	CI	0.60
	Score >	12							12.000	0.60	

Comments: CONNECTED TO S.SRC.56.



W-SRC-34 overview, facing north.



W-SRC-34 overview, facing south.



W-SRC-34 wetland soil test pit.



W-SRC-34 upland soil test pit.

WETLAND W-SRC-35

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07.18.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SAC, KLG		State: PA
Cowardin Classification (Percentage): PFO / PEM (64 / 36)		Wetland ID #: W-SAC-37
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?		
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?		
NWI Classification: > (if applicable)		
Landform/Geomorphic Setting (Check All That Apply)		
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace	
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel	
<input type="checkbox"/> Hillslope Seep/Spring	<input checked="" type="checkbox"/> Floodplain	
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan	
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta	
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -	
Slope: ~5 %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:	Datum:	
No. of Flags: 11	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A	1 - E 3 - WETLAND PIT 2 - W 4 - UPLAND PIT	
Remarks: CONNECTED TO S-SRC-56 - JURISDICTIONAL		

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: CANOPY PROVIDED VIA TREES ON UPLAND INCLUSIONS.			

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-SRC-35

VEGETATION

#	Tree Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet	
1	WALNUT (<i>JUGLANS NIGRA</i>)	NOTED*	-	FACU	# of Dominant Species that are OBL, FACW, or FAC?	2 (A)
2	LOCUST (<i>ROBINA PSEUDACACIA</i>)	NOTED*	-	FACU	Total # of Dominant Species across all Strata?	3 (B)
3	TULIP POPLAR (<i>LEUCODENDRON TULIPIFERA</i>)	NOTED*	-	FACU	% of Dominant Species that are OBL, FACW, or FAC?	67 (A/B)
4					Prevalence Index Worksheet	
5					Total % Cover of:	Mult. by:
6					OBL species	1 =
		100	= Total Cover		FACW species	2 =
#	Sapling Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	FAC species	3 =
1	WITCH HAZEL (<i>HAMAMELIS VIREL.</i>)	20	Y	FACU	FACU species	4 =
2					UPL species	5 =
3					Coln. Totals:	(A) (B)
4					Prevalence Index =	B/A =
5					Hydrophytic Vegetation Indicators	
		20	= Total Cover		Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
#	Shrub Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1					Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input type="checkbox"/> No
2					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4					Vegetation Strata Definitions	
5					Tree – Woody plant 20+ feet high & 3+ in. dbh	
			= Total Cover		Sapling – Woody plant 20+ feet high & <3 in. dbh	
#	Herb Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Shrub – Woody plant ~3-20 feet high	
1	SPURGEON (<i>IMPATIENS CAPRIBLES</i>)	40	Y	FACW	Woody Vine – All woody vines	
2	CAROLY GRASS	30	Y	OBL	Hydrophytic Vegetation Present?	
3	BIG BLUESTEM (<i>ANDROPOGON GYMNEDES</i>)	10	N	FAC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
4	DOGSTONE (<i>APOLYNUM CANADENSE</i>)	10	N	FACU	Remarks:	
5	SOLRADO SP.	10	N	-	* CANOPY PROVIDED BY TREES	
6	MILKWEED (<i>VERATRUM VIRIDE</i>)	NOTED	N	FACW	WITH UNUSUAL INCLUSIONS PER USALC REG. SUPPL., 270%	
7	IRIS SP.	NOTED	N	-	CANOPY PROVIDED BY TREES OUTSIDE OF WETLAND BOUNDS → PFO.	
8						
9						
10						
#	Woody Vine Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
			= Total Cover			

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-62C-35
SOILS

Soil Survey Map Unit Name/Symbol: - Drainage Class: -
 Taxonomy: - Field Observations Confirm Mapped Type: Yes No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 5	7.5YR 3/2 / 100	- / - / - / -	-	SILT W/ SAND
5 - 12	7.5YR 3/1 / 95	5YR 3/3 / 5 / RM / M	FEW, DULL	SILT W/ SAND
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains
 Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input checked="" type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present? Yes No

Remarks: SOIL CONSISTS OF SEDIMENT DEPOSITS - W/IN FLOODPLAIN.

WETLAND ID #:

W - SAC - 35

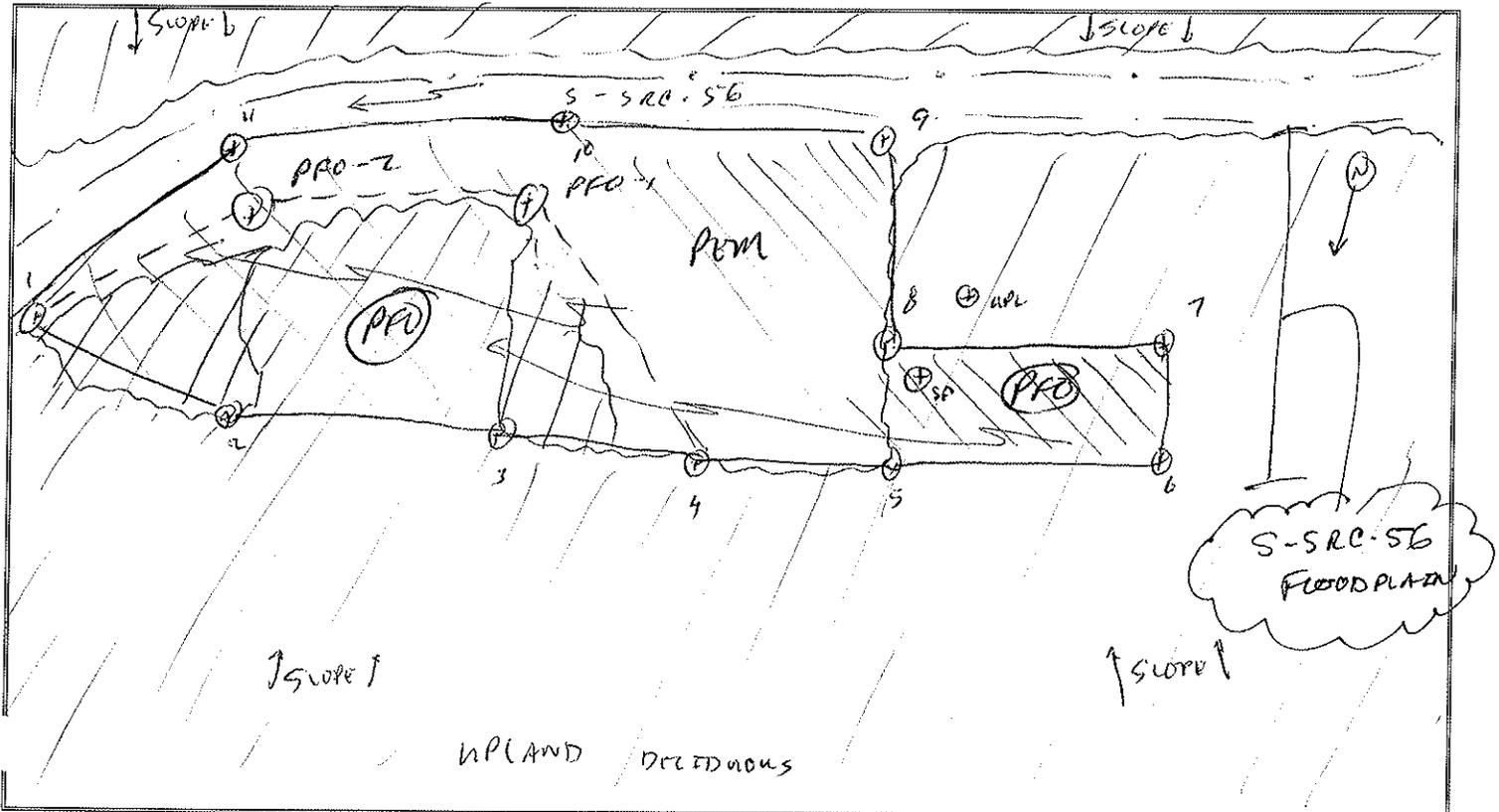
HYDROLOGY

WETLAND HYDROLOGY INDICATORS	
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input 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
<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
<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
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS			
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 4 (in)
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 6 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: CONNECTED TO S-SAC-56 - JURISDICTIONAL.

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

2 W-SRC-3T

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	JULIP POPLAR (<i>LIRIODENDRON TULIPIFOLIA</i>)	60 - 7	Y	FACU
2	YELLOW BIRCH (<i>BETULA ALLEGANIENSIS</i>)	20 - 7	Y	FAC
3	WITCH HAZEL (<i>HAMAMELIS VIRGINIANA</i>)	20 - 7	Y	FACU
4				
5				
6				
			= Total Cover	
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: WETLAND VEG IS PRESENT AND DOMINANT @ SAMPLE PT. (50/20).				

SOILS

Soil Survey Map Unit Name/Symbol:			Drainage Class:	
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	5 / 1 -	- / - / - / - / -	-	-
2 - 5	10YR 3/2 / 100	- / - / - / - / -	-	SANDY LOAM w/ GRAVEL
	1	1 / 1 / 1		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: HYDRIC SOILS NOT PRESENT @ SAMPLE POINT.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS				
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard	
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs	
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available	
FIELD OBSERVATIONS				
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of:	- (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of:	- (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to:	- (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Remarks: WETLAND HYDROLOGY NOT PRESENT @ SAMPLE PT.				

W · SRC · 35

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

For use in all wetland classifications found within Pennsylvania except those found within the banks of a watercourse.

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)
A115	PTC ALLEGHENY TUNNEL	07.18.12	N/A	W · SRC · 35	
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:	
SRC, KLF				JURISDICTIONAL.	

Wetland Zone of Influence (300 foot area around AA perimeter)	Condition Category																			
	Optimal	Suboptimal		Marginal		Poor														
Tree stratum (dbh > 3 inches) present, with > 60% tree canopy cover. Any areas comprised of wetlands or stream channels are also classified as optimal.	High Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory	Low Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and a maintained understory or recent timber harvesting cutover (< 5 years)	High Marginal: Non-maintained, dense herbaceous vegetation, with either a shrub or tree layer (dbh > 3 inches) with < 30% tree canopy cover.	Low Marginal: Non-maintained, dense herbaceous vegetation, ZOI areas lacking shrub and tree stratum or If tree stratum present, has < 30% canopy cover with a maintained understory.	High Poor: Lawns, mowed and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.														
SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

1. Identify all applicable Condition Category areas within the wetland zone of influence using the descriptors above.
2. Estimate the % area within each condition category. Calculators are provided for you below.
3. Enter the % ZOI Area in decimal form (0.00) and Score for each category in the blocks below.

Scoring:	% ZOI Area >	0.70	0.30						1.00	0%	CI
	Score >	16	8						13.6	0.00	0.00

Comments: CONNECTED TO S · SRC · 56.

0.68



W-SRC-35 overview, facing east.



W-SRC-35 overview, facing west.



W-SRC-35 wetland soil test pit.



W-SRC-35 upland soil test pit.

WETLAND W-SRC-36

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 07.18.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRE, KCC		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W SRC 36	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input checked="" type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: 5-10 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 10		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1- NW 3- WETLAND PIT	
		2- E 4- UPLAND PIT	
Remarks: ASSOC. W/ S-SRC-56 - JURISDICTIONAL			

SUMMARY OF FINDINGS

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

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-SNE-36

SOILS

Soil Survey Map Unit Name/Symbol: -	Drainage Class: -
Taxonomy: -	Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 1	10YR 2/1 100	- - - -	-	-
1 - 6	10YR 2/1 100	- - - -	-	STANDY WASH
6 - 18	10YR 5/1 80	7.5YR 4/4 20 PM PL	LOW, MOMENTARY	CLAY LOESS w/ GRAVEL
-				
-				
-				

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains
Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present? Yes No

Remarks:

WETLAND ID #: W-SRC-36

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

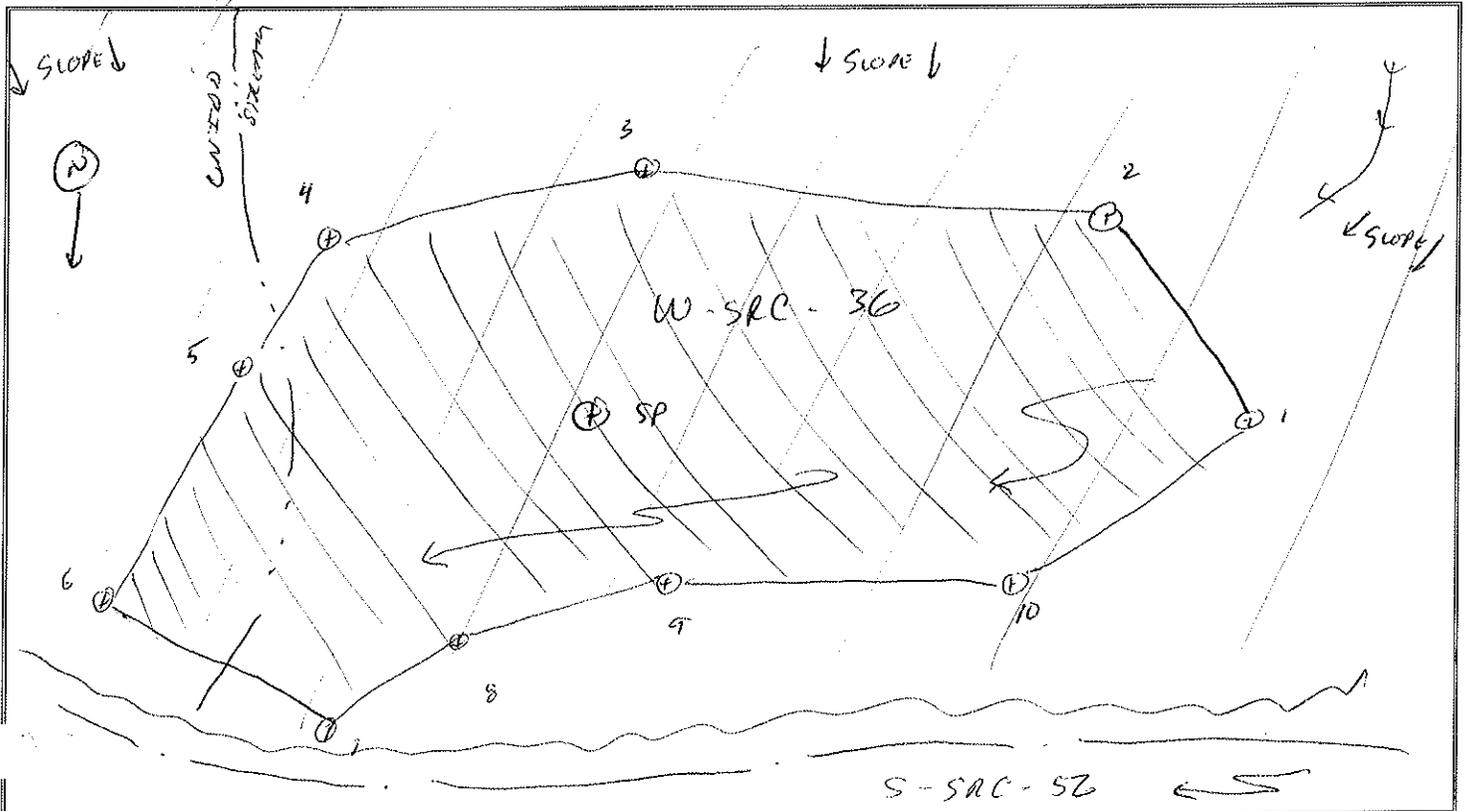
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<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 checked="" 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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: ADJ. & CONNECTED TO S-SAC-56 - JURISDICTIONAL

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-526-36

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	TULIP POPLAR (LIRIODENDRON TULIPIFERA)	60	Y	FACU
2	STRIPED MAPLE (ACER PENNSYLVANICUM)	30	Y	FACU
3	SWEET BIRCH (BETULA LENTA)	10	N	FACU
4				
5				
6				
			= Total Cover	
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND VEG. IS NOT NOTED @ SAMPLE PT.				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 3	- / -	- / - / - / -	-	-
3 - 6	10YR4/3 / 100	- / - / - / -	-	-
	1	1 / 1 / 1		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: RUBUS @ 6" DNE TO ROCK. NO WETLAND SOILS NOTED @ SAMPLE.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Remarks: NO WETLAND HYDROLOGY NOTED @ SAMPLE			



W-SRC-36 overview, facing east.



W-SRC-36 overview, facing northwest.



W-SRC-36 wetland soil test pit.



W-SRC-36 upland soil test pit.

WETLAND W-SRC-37

WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)

Project/Site: Allegheny Tunnel		Date: 08.06.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SRC, KLE		State: PA
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W-SRC-37
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?		
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?		
NWI Classification: — (if applicable)		
Landform/Geomorphic Setting (Check All That Apply)		
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace	
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel	
<input checked="" type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain	
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan	
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta	
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -	
Slope: 5-10 %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:	Datum:	
No. of Flags: 8	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. —	1- SSW 3- WETLAND PER 2- NNE 4- UPLAND PER	
Remarks: ADJ. TO S-SRC-56. POSSIBLY JURISDICTIONAL		

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: CANOPY @ ~ 80%. PROVIDED BY TULSA PEOPLE + WITHIN AREA OUTSIDE.			

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W. 5RE. 37

VEGETATION

#	Tree Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet	
1					# of Dominant Species that are OBL, FACW, or FAC?	3 (A)
2					Total # of Dominant Species across all Strata?	3 (B)
3					% of Dominant Species that are OBL, FACW, or FAC?	100 (A/B)
4					Prevalence Index Worksheet	
5					Total % Cover of:	Mult. by:
6					OBL species	1 =
					FACW species	2 =
					FAC species	3 =
					FACU species	4 =
					UPL species	5 =
					Coln. Totals: (A)	(B)
					Prevalence Index =	B/A =
					Hydrophytic Vegetation Indicators	
					Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
					Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
					Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Vegetation Strata Definitions	
					Tree – Woody plant 20+ feet high & 3+ in. dbh	
					Sapling – Woody plant 20+ feet high & <3 in. dbh	
					Shrub – Woody plant ~3-20 feet high	
					Woody Vine – All woody vines	
					Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
					Remarks:	
					CANOPY @ ~80%, PROVIDED BY TULIP POPLAR AND WETCH HAZEL, WHICH ARE IMMEDIATELY OUTSIDE OF WETLAND BOUNDARY. PER USACE SUPPLEMENT, 70%+ CANOPY PROVIDED BY TREES IMMEDIATELY OUTSIDE OF WETLAND BOUNDS.	
					Herb Stratum Species	
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1	GLYCERIA MEGALOPH	60	Y	OBL		
2	JEWELWOOD (<i>SMILAX CATENSIS</i>)	20	Y	FACW		
3	SEM-PALM (<i>CONDOLIA SERRATA</i>)	20	Y	FACW		
4	CANE SP.	NOTED	N	-		
5						
6						
7						
8						
9						
10						
					Woody Vine Stratum Species	
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
					Prevalence Index Worksheet	
					Total % Cover of:	Mult. by:
					OBL species	1 =
					FACW species	2 =
					FAC species	3 =
					FACU species	4 =
					UPL species	5 =
					Coln. Totals: (A)	(B)
					Prevalence Index =	B/A =

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: *w-src-37*

SOILS

Soil Survey Map Unit Name/Symbol: -	Drainage Class: -
Taxonomy: -	Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
<i>0 - 3</i>	<i>- / -</i>	<i>- / - / - / -</i>	<i>-</i>	<i>-</i>
<i>3 - 7</i>	<i>10YR 5/2 / 100</i>	<i>- / - / - / -</i>	<i>-</i>	<i>SILT LOAM</i>
<i>7 - 12</i>	<i>10YR 5/1 / 70</i>	<i>7.5YR 3/4 / 30 / RM / M</i>	<i>MANY, DISTANT</i>	<i>SILT CLAY</i>
<i>-</i>	<i>/</i>	<i>/ / /</i>		
<i>-</i>	<i>/</i>	<i>/ / /</i>		
<i>-</i>	<i>/</i>	<i>/ / /</i>		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input checked="" type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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Remarks:

WETLAND ID #: W. SRC - 37

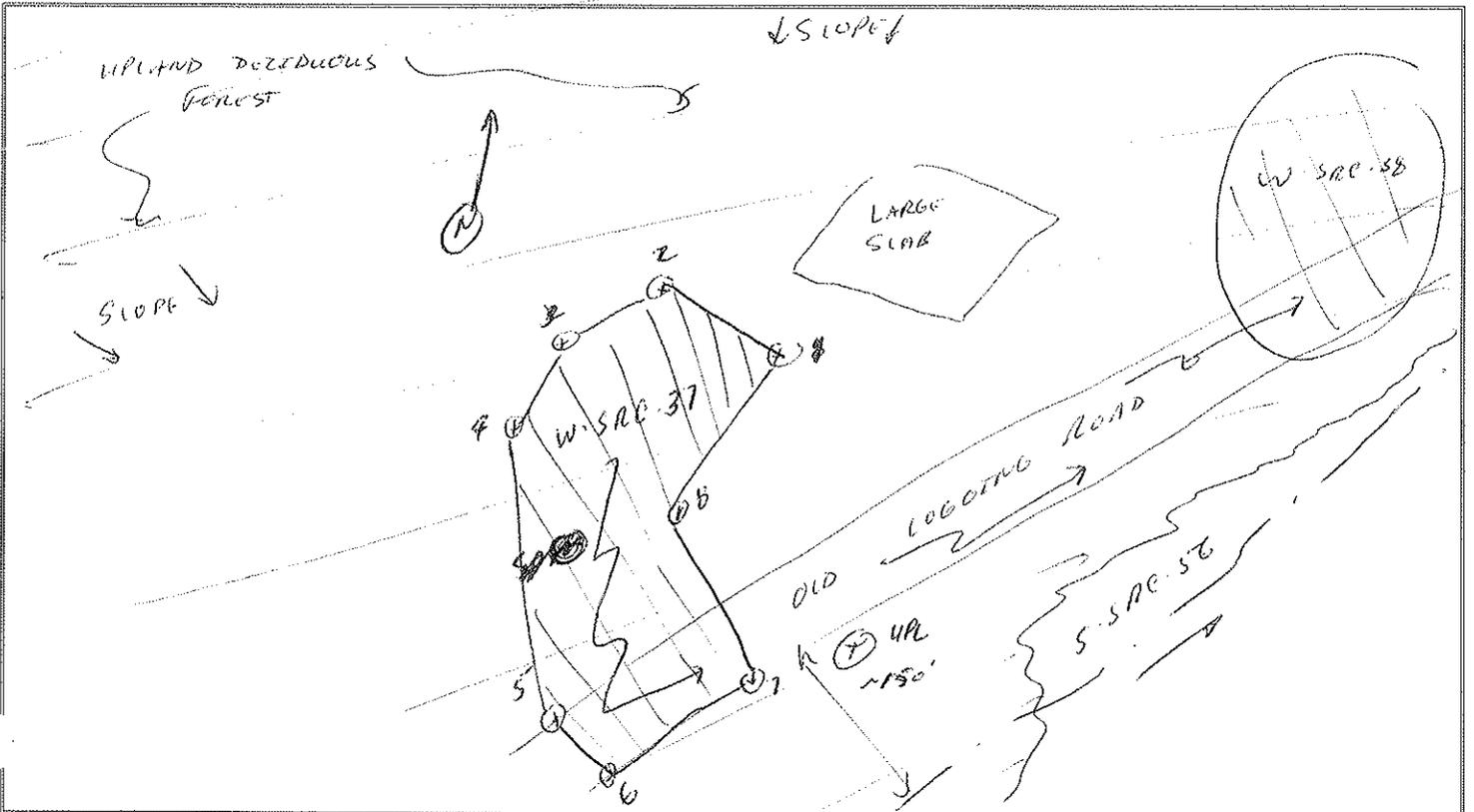
HYDROLOGY

WETLAND HYDROLOGY INDICATORS	
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input 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
<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 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 checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input checked="" type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: ADJ. TO S. SRC. 56. POSSIBLY TUNDRA

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

2 W-SAC-37

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	TULIP POPLAR (LALODENDRON TULIPIFERA)	30	Y	FACU
2	SUGAR MAPLE (ACER SACCHARUM)	30	Y	FACU
3	WITCH HAZEL (HAMAMELIS VIRGINIANA)	20	Y	FACU
4				
5				
6				

Wetland Vegetation Present? Yes No = Total Cover

Remarks: WETLAND VEG. IS NOT PRESENT OR DOMINANT @ SAMPLE PT.

SOILS

Soil Survey Map Unit Name/Symbol: Drainage Class:

PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 8	2.5Y 2.5/1 / 100	- / - / - / -	-	SILT CLAY
-	/	/ / / /		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

Hydric Soil Present? Yes No

Remarks: REFUSAL @ 8' DUE TO ROCKS/ROOTS WETLAND SOILS NOT PRESENT @ SAMPLE PT.

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input 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
<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
<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
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Remarks: NO WETLAND HYDROLOGY NOTED @ SAMPLE PT.



W-SRC-37 overview, facing north-northeast.



W-SRC-37 overview, facing south-southwest.



W-SRC-37 wetland soil test pit.



W-SRC-37 upland soil test pit.

WETLAND W-SRC-38

WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)

Project/Site: Allegheny Tunnel		Date: 08.06.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, ALI		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W SRC-5B	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: — (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel		
<input checked="" type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other —		
Slope: 5-10 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude:	Longitude:	Datum:	
No. of Flags: 15	Photographs (with Direction of Photo or Description)		
Open Ended Flag Nos. N/A	1 - WNW	3 - WETLAND PIT	
	2 - NE	4 - UPLAND PIT	
Remarks: CONNECTED TO S. SRC ST, FED BY S. SRC-62			

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No						
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No				Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No						
Remarks: CANOPY @ ~ 85%, PROVIDED BY TREES OUTSIDE OF BOUNDS.								

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

WETLAND ID #: W.S.R.C. 38

SOILS

Soil Survey Map Unit Name/Symbol: -	Drainage Class: -
Taxonomy: -	Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	1	1 1 1		
2 - 6	10YR 2/2 100	- 1 - 1 - 1 -	~	Soft loamy clay loam
6 - 10	10YR 4/1 80	7.5YR 4/6 20 1 Pm 1 PL	(common), BRIGHT	clay loam
-	1	1 1 1		
-	1	1 1 1		
-	1	1 1 1		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input checked="" type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input checked="" type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks: Refusal @ 10" - FORWILL CONSTRUCTION FROM OLD LOGGERS RD.		

WETLAND ID #: W-SAC-32

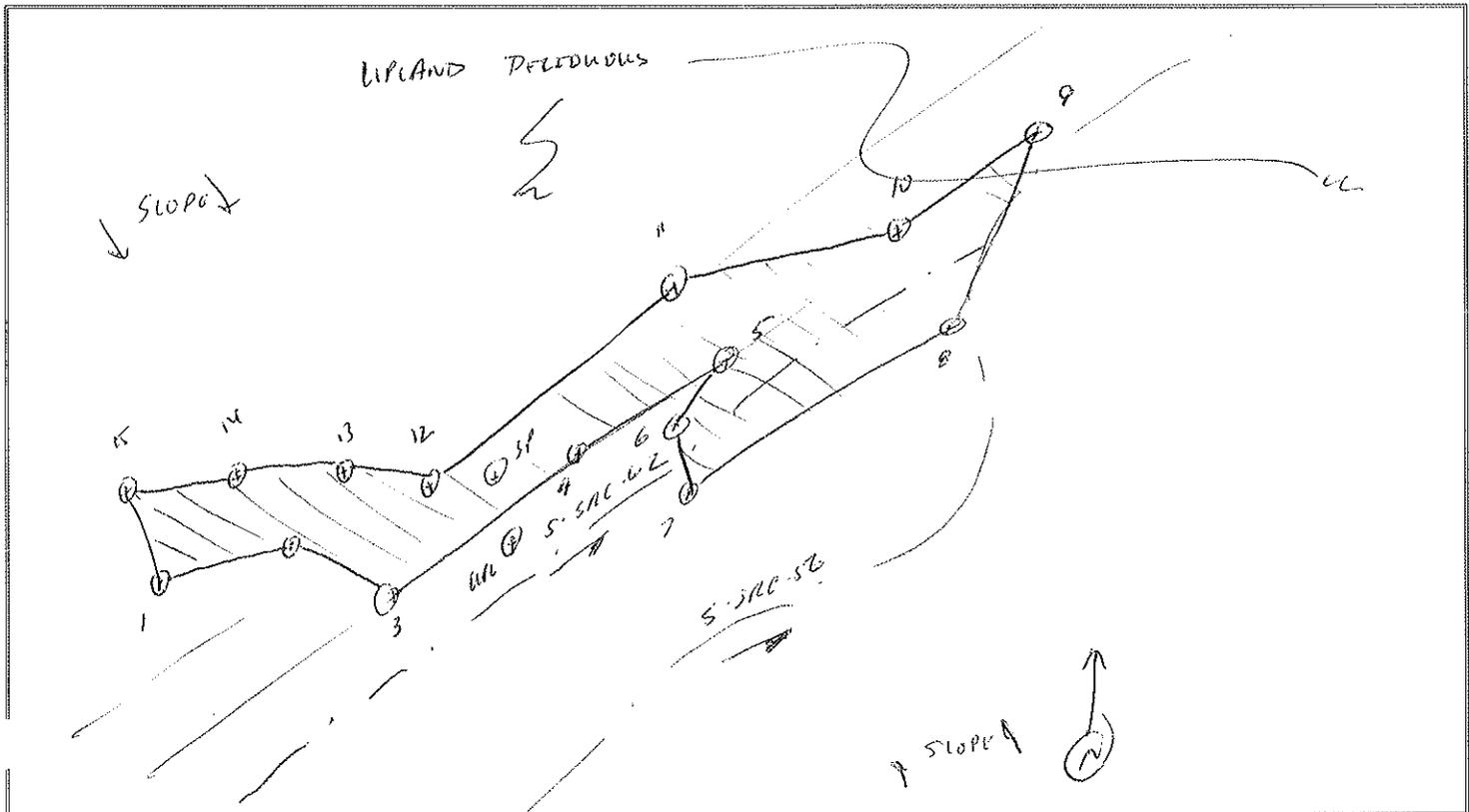
HYDROLOGY

WETLAND HYDROLOGY INDICATORS	
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input checked="" 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 checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS			
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 1 (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: CONTINUED TO S-SAC-52 - JURISDICTIONAL

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W. SRC. 89

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	<i>TULIP POPLAR (LIRIODENDRON TULIPIFERA)</i>	60	Y	FACU
2	<i>SUGAR MAPLE (ACER SACCHARUM)</i>	40	Y	FACU
3				
4				
5				
6				
			= Total Cover	
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: <i>WETLAND VEG IS NOT DOMINANT OR PRESENT @ SAMPLE PT.</i>				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 7	<i>MAR 3.5/3 / 100</i>	- / - / - / -	-	<i>SILT LOAM w/ SAND</i>
	/	/ / /		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: <i>REFUSAL @ 7" DUE TO ROLL, WETLAND SOIL NOT PRESENT @ SAMPLE PT.</i>				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: <i>WETLAND HYDROLOGY IS NOT PRESENT @ SAMPLE PT.</i>			



W-SRC-38 overview, facing northeast.



W-SRC-38 overview, facing west-northwest.



W-SRC-38 wetland soil test pit.



W-SRC-38 upland soil test pit.

WETLAND W-SRC-39

**WETLAND DETERMINATION DATA FORM
 ROUTINE WETLAND DETERMINATION
 (1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 06.06.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SAC, KLE		State: PA	
Cowardin Classification (Percentage): H ₂ O (100)		Wetland ID #: W-SAC-39	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: — (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input checked="" type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other --		
Slope: %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 3		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - SW 3 - WETLAND DET 2 - NE 4 - UPLAND DET	
Remarks: CONNECTED TO S-SAC-56. POSSIBLY JURISDICTIONAL			

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: CANOPY @ 90% - TREES OUTSIDE OF BOUNDARY.					

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: 10-SAC-39

SOILS

Soil Survey Map Unit Name/Symbol: -	Drainage Class: -
Taxonomy: -	Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 6	10YR 3/2 90	7.5YR 3/4 10 RM M	COMMON, DISTINCT	SELF COLOR
6 - 10	2.5Y 3/2 90	10YR 3/6 10 RM M	COMMON, DISTINCT	SELF COLOR
-				
-				
-				

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input checked="" type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input checked="" type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks: REFUSH @ 10" = LOGGING ROAD COMPLETION		

WETLAND ID #: W-421-39

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

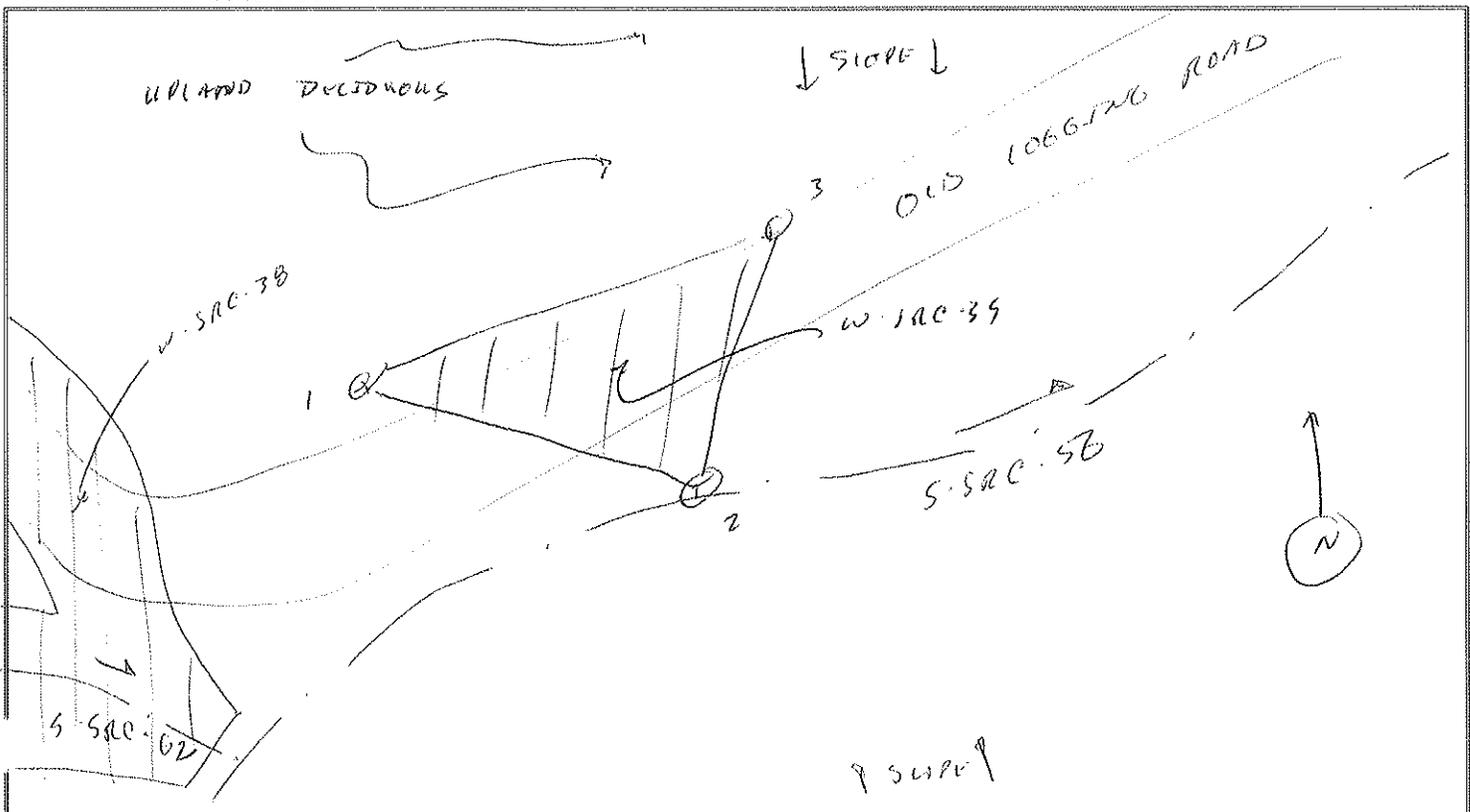
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: ADJ. & CONNECT. TO S-SAC-56. JURISDICTIONAL.

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: *2* Upland Data Point
W-SRC-39

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SUGAR MAPLE (ACER SACCHARUM)	100	y	FACU
2	BALCON ASH (FRAXINUS PENNSYLVANICA)	40	y	FACU
3				
4				
5				
6				
		100	= Total Cover	
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: <i>WETLAND Veg. IS PRESENT & DOMINANT @ SAMPLE Pt.</i>				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- 1 -	- 1 - 1 - 1 -	-	-
2 - 6	10YR 3/4 1 100	- 1 - 1 - 1 -	-	SILT LOAM
-	1	1 1 1		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: <i>ACTUAL @ 6" DUE TO ROCK. WETLAND SOIL NOT PRESENT.</i>				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: <i>WETLAND HYDROLOGY IS NOT PRESENT @ SAMPLE Pt.</i>			



W-SRC-39 overview, facing northeast.



W-SRC-39 overview, facing southwest.



W-SRC-39 wetland soil test pit.



W-SRC-39 upland soil test pit.

WETLAND W-SRC-40

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 08.06.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLE		State: PA	
Cowardin Classification (Percentage): PFO (100%)		Wetland ID #: W-520-40	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: — (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel		
<input checked="" type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input checked="" type="checkbox"/> Other - LOW POINT, OLD LOGGING RD.		
Slope: 5 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 6		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - WSD 3 - WETLAND PFT 2 - FVE 4 - UPLAND PFT	
Remarks: ADJ. TO S-520-56, POSSIBLY JURISDICTIONAL			

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: CANOPY @ ~ 80% - FACTS OUTSIDE OF BOUNDS.			

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W.SRC. 40

VEGETATION

#	Tree Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet	
					# of Dominant Species that are OBL, FACW, or FAC?	
1					2	(A)
2					2	(B)
3					100	(A/B)
4					Prevalence Index Worksheet	
5					Total % Cover of:	Mult. by:
6					OBL species	1 =
					FACW species	2 =
					FAC species	3 =
#	Sapling Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	FACU species	4 =
1					UPL species	5 =
2					Coln. Totals:	(A) (B)
3					Prevalence Index =	B/A =
4					Hydrophytic Vegetation Indicators	
5					Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
#	Shrub Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1					Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input type="checkbox"/> No
2					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4					Vegetation Strata Definitions	
5					Tree – Woody plant 20+ feet high & 3+ in. dbh	
					Sapling – Woody plant 20+ feet high & <3 in. dbh	
					Shrub – Woody plant ~3-20 feet high	
#	Herb Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Woody Vine – All woody vines	
1	JEWEL WOOD (<i>JUDAS TREES</i>)	40	Y	FACW	Hydrophytic Vegetation Present?	
2	CYPRESS	20	Y	FACW	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3	SWAMP OAK (<i>QUERCUS</i>)	10	N	FACW	Remarks:	
4	CANE SP.	10	N	-	TULIP POPLAR & ASH PROVIDE ~80% CANOPY FROM IMMED. OUTSIDE OF WETLAND BOUND. PER ASH & OCCASIONAL SWAMP, 270% TREE CANOPY PROVIDED BY TREES IMMED. OUTSIDE OF WETLAND BOUNDS → PFD	
5						
6						
7						
8						
9						
10						
		80			= Total Cover	
#	Woody Vine Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
					= Total Cover	

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W . SAC . 40

SOILS

Soil Survey Map Unit Name/Symbol: -	Drainage Class: -
Taxonomy: -	Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 1	1	1 1 1		
1 - 3	10YR 3/2 1 100	- 1 - 1 - 1 -	-	SFT LOAM
3 - 9	2.5Y 3/2 1 95	10YR 3/6 1 5 1 RM 1 PL	FEW, DULL	CLAY LOAM w/ GRAZE
-	1	1 1 1		
-	1	1 1 1		
-	1	1 1 1		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input checked="" type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks:	REFUSAL @ 9" DUE TO ROCK - OLD LOGGED RD. COMPACTION	

WETLAND ID #: W-SRC-40

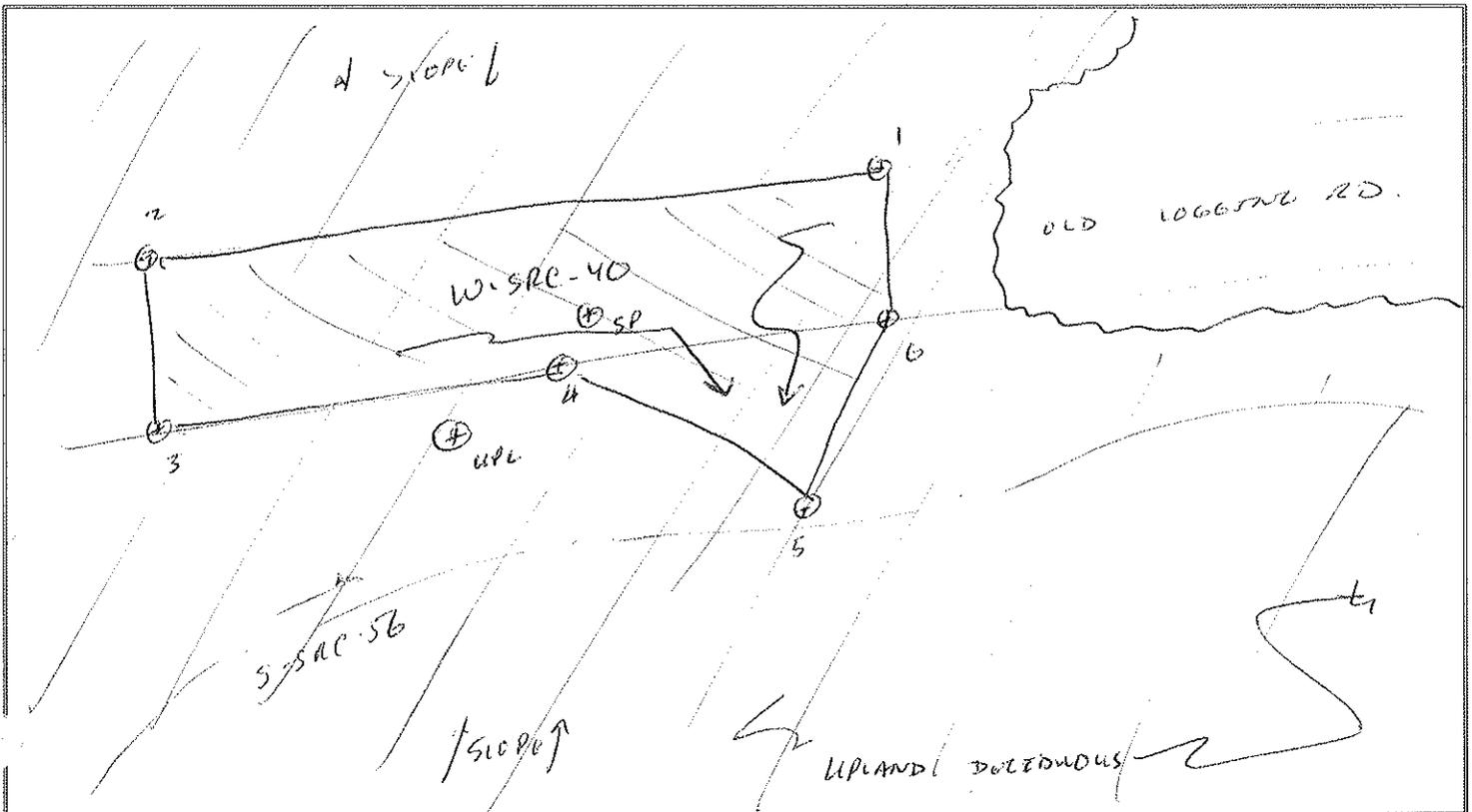
HYDROLOGY

WETLAND HYDROLOGY INDICATORS	
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<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 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
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: CONNECTED TO S-SRC-56 - POSSIBLY JURISDICTIONAL

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: *2* Upland Data Point *W. SAC-40*

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	<i>WALNUT POPLAR (LINDERA DENDRIFERA)</i>	60	Y	<i>FAEU</i>
2	<i>WALNUT ASH (FRAXINUS PENNSYLVANICA)</i>	40	Y	<i>FAEO</i>
3				
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: <i>WETLAND VEGETATION IS PRESENT & DOMINANT @ SAMPLE PT.</i>				

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- 1 -	- 1 - 1 - 1 -	-	-
2 - 10	10YR 3/2 100	- 1 - 1 - 1 -	-	<i>SELF WASH</i>
	1	1 1 1		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: <i>WETLAND SOILS NOT NOTED @ SAMPLE PT.</i>				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: <i>WETLAND HYDROLOGY IS NOT PRESENT @ SAMPLE PT.</i>			



W-SRC-40 overview, facing east-northeast.



W-SRC-40 overview, facing west-southwest.



W-SRC-40 wetland soil test pit.



W-SRC-40 upland soil test pit.

WETLAND W-SRC-41

**WETLAND DETERMINATION DATA FORM
 ROUTINE WETLAND DETERMINATION
 (1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)**

Project/Site: Allegheny Tunnel		Date: 08.06.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, RLE		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W-SRC-41	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: 3- (if applicable)			
Landform/Gomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input checked="" type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: 15 %		Land Relief: <input type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 1		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1- SW 3- WETLAND NET 2- NE 4- UPLAND PCT	
Remarks: APPARENTLY ISOLATED - NO INLET / OUTLET			

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: CANOPY @ ~ 95% . TREES IMMED. OUTSIDE OF BOUNDS					

NOTE:

- Please draw a Plan View sketch (in the space provided on Page 4) of the wetland and surrounding area that includes the wetland's boundaries (provide flag numbers), any associated natural or man-made features (i.e., forest, ag fields, homes, roads, utility lines, etc.), connectivity to adjacent/abutting stream, and the locations of the wetland and upland soil pits. Also, please illustrate the general location of PEM, PSS, PFO, POW, PUB wetland components within the boundary of the wetland complex.
- Please complete the upland data sheet for each wetland found at the end of this form.
- Please GPS the wetland and upland soil pits and locate on the plan view map the location/direction (with arrows) of photos taken.
- Please make note of the wetland's connectivity to a jurisdictional water of the US (i.e., TNW [perennial & canoeable or larger stream], RPW [smaller perennial or intermittent stream], non-RPW [intermittent or ephemeral stream]) or whether it is an isolated system.

WETLAND ID #: W.SAC-41

VEGETATION

#	Tree Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet			
1					# of Dominant Species that are OBL, FACW, or FAC?	2 (A)		
2					Total # of Dominant Species across all Strata?	2 (B)		
3					% of Dominant Species that are OBL, FACW, or FAC?	100 (A/B)		
4					Prevalence Index Worksheet			
5					Total % Cover of:	Mult. by:		
6					OBL species	1 =		
				= Total Cover			FACW species	2 =
#	Sapling Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	FAC species	3 =		
1					FACU species	4 =		
2					UPL species	5 =		
3					Coln. Totals:	(A)	(B)	
4					Prevalence Index =	B/A =		
5					Hydrophytic Vegetation Indicators			
					= Total Cover			Rapid Test for Hydrophytic Veg.
#	Shrub Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
1					Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
3					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
4					Vegetation Strata Definitions			
5					Tree – Woody plant 20+ feet high & 3+ in. dbh			
					= Total Cover			Sapling – Woody plant 20+ feet high & <3 in. dbh
#	Herb Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Shrub – Woody plant ~3-20 feet high			
1	Fork Meadows OE. (<i>LYCOPHILA STRATA</i>)	60	y	OBL	Woody Vine – All woody vines			
2	REVER WEED (<i>SALICORNIA CHELIDONIFOLIA</i>)	10	y	FACW	Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
3					Remarks:			
4					CANOPY @ ~95% - TULIP POPLAR			
5					OUTSIDE OF BOUNDS (LIMITS.)			
6					SEE USACE R.D. SUPPLEMENT →			
7					PREO RESOURCES.			
8								
9								
10								
		70			= Total Cover			
#	Woody Vine Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator				
1								
2								
					= Total Cover			

WETLAND ID #: W SAC-41

SOILS

Soil Survey Map Unit Name/Symbol: -	Drainage Class: -
Taxonomy: -	Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 10	10YR 3/2 1 20	10YR 3/6 1 20 / RM / PL	COMMON, DISTINCT	SELF LEARN
10 - 13 +	2.5Y 5/1 1 70	5YR 4/4 1 30 / RM / PL = M	MANY, DISTINCT	CLAY
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		

Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input checked="" type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm of Muck (A10)	<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)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other
<input type="checkbox"/> Dark Surface (S7)	

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other
<input type="checkbox"/> Red Parent Material (TF2)	

Hydric Soil Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks:		

WETLAND ID #:

W. SAC-41

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<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 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 checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

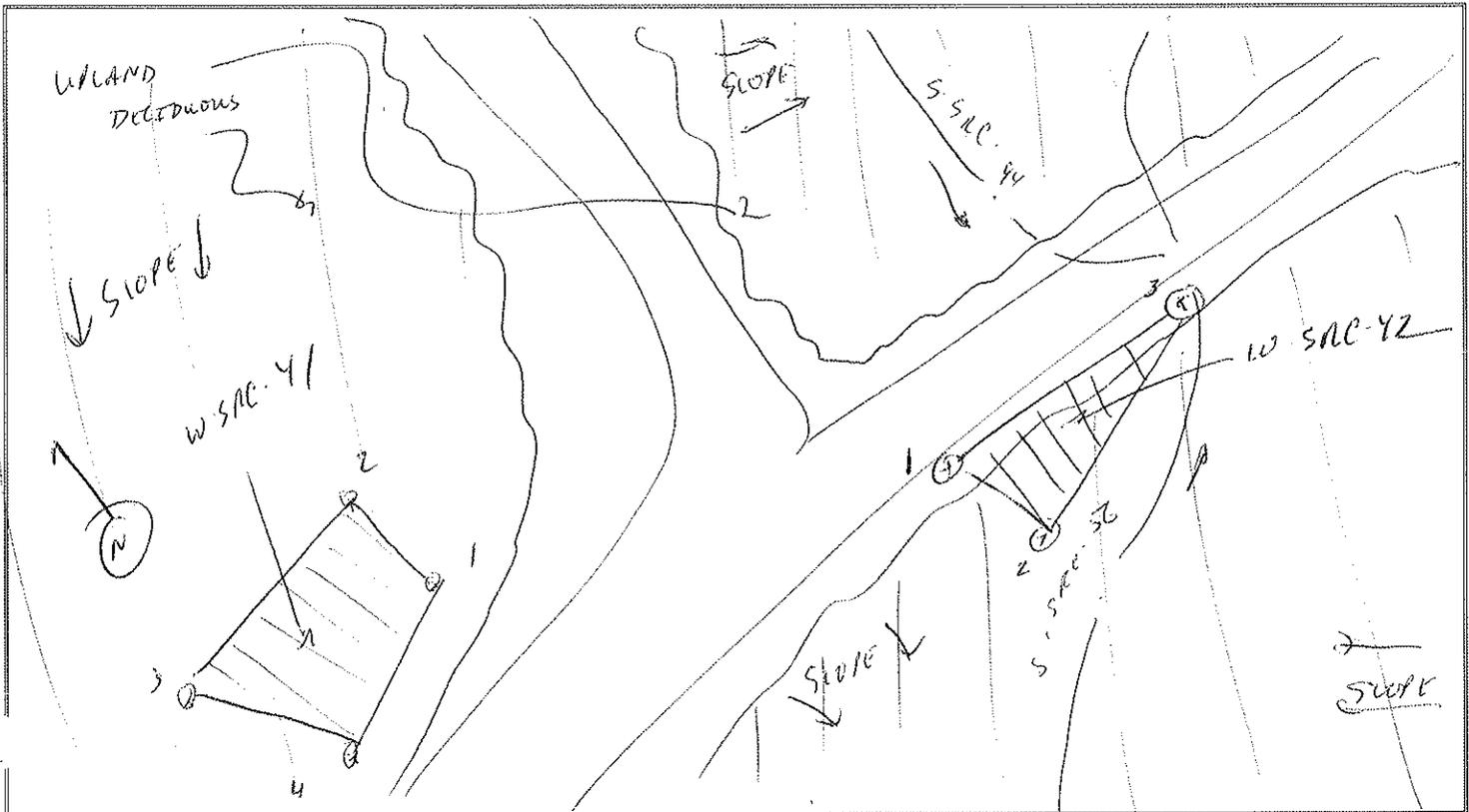
FIELD OBSERVATIONS

Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks:

APPARENTLY ISOLATED - NO INLET/OUTLET NOTED.

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

VEGETATION

W-5R2-41

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	TULIP POPLAR (LIRIODENDRON TULIPIFERA)	80	Y	FACU
2	SWEET BIRCH (BETULA LENTA)	20	Y	FACU
3				
4				
5				
6				
		100	= Total Cover	
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND VEG IS NOT PRESENT OR DOMINANT @ SAMPLE				

SOILS

Soil Survey Map Unit Name/Symbol:			Drainage Class:	
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 1	- / -	- / - / - / -	-	-
1 - 3	10YR 2/1 / 100	- / - / - / -	-	SILT LOAM
3 -	10YR 4/3 / 100	- / - / - / -	-	SILT LOAM
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Remarks: WETLAND SOIL IS NOT PRESENT @ SAMPLE PT.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Other	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> No Recorded Data Available	
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Recorded Data (Describe in Remarks)	
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	
<input type="checkbox"/> Other		<input type="checkbox"/> Aerial Photographs	
		<input type="checkbox"/> Other - (i.e., well data)	
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: ~ (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: ~ (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: ~ (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: NO WETLAND HYDROLOGY @ SAMPLE PT.			

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

For use in all wetland classifications found within Pennsylvania except those found within the banks of a watercourse.

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)	
A115	PTE ALLEGHENY TUNNEL	08.06.12		W.SRC.41		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
SAC, KLE				APPARENTLY ISOLATED.		

1. Wetland Zone of Influence Condition Index

Wetland Zone of Influence (300 foot area around AA perimeter)	Condition Category																							
	Optimal				Suboptimal				Marginal				Poor											
Tree stratum (dbh > 3 inches) present, with > 60% tree canopy cover. Any areas comprised of wetlands or stream channels are also classified as optimal.	High Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory				Low Suboptimal: ZOI areas with tree stratum (dbh > 3 inches, with 30-60% tree canopy cover and a maintained understory or recent timber harvesting cutover (< 5 years)				High Marginal: Non-maintained, dense herbaceous vegetation, with either a shrub or tree layer (dbh>3 inches) with <30% tree canopy cover.				Low Marginal: Non-maintained, dense herbaceous vegetation, ZOI areas lacking shrub and tree stratum or If tree stratum present, has <30% canopy cover with a maintained understory.				High Poor: Lawns, mowed and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.				Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.			
SCORE _____	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1				

1. Identify all applicable Condition Category areas within the wetland zone of influence using the descriptors above.
2. Estimate the % area within each condition category. Calculators are provided for you below.
3. Enter the % ZOI Area in decimal form (0.00) and Score for each category in the blocks below.

Scoring:	% ZOI Area >	0.75	0.25					1.00 0%	CI
	Score >	15	6					12.75 0.00	0.00

Comments:

No OBVIOUS INLET / OUTLET.

0.64



W-SRC-41 overview, facing northeast.



W-SRC-41 overview, facing southwest.



W-SRC-41 wetland soil test pit.



W-SRC-41 upland soil test pit.