



W-SRC-10 overview, facing east.



W-SRC-10 overview, facing west.



W-SRC-10 wetland soil test pit.



W-SRC-10 upland soil test pit.

WETLAND W-SRC-11

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

Project/Site: Allegheny Tunnel		Date: 05.30.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLE		State: PA	
Cowardin Classification (Percentage): Hem (100)		Wetland ID #: W-SRC-11	
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)? POWERLINE 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 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:		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1- WSW	3-
		2- NE	4-
Remarks: APPARENTLY ISOLATED - NO NOTED CONNECTION TO SW			

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: LOCATED W/IN POWERLINE ROAD.					

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. 11
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 2/1 / 100	- / - / - / -	-	SANDY SIFT LOAM
6 - 8	2.5Y 6/2 / 80	5YR 4/6 / 20 / RM / PL	Common, prominent	Sandy 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"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> 2 cm of Muck (A10)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Other

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 @ 5" DUE TO ROLL

WETLAND ID #: W-SAC-11

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

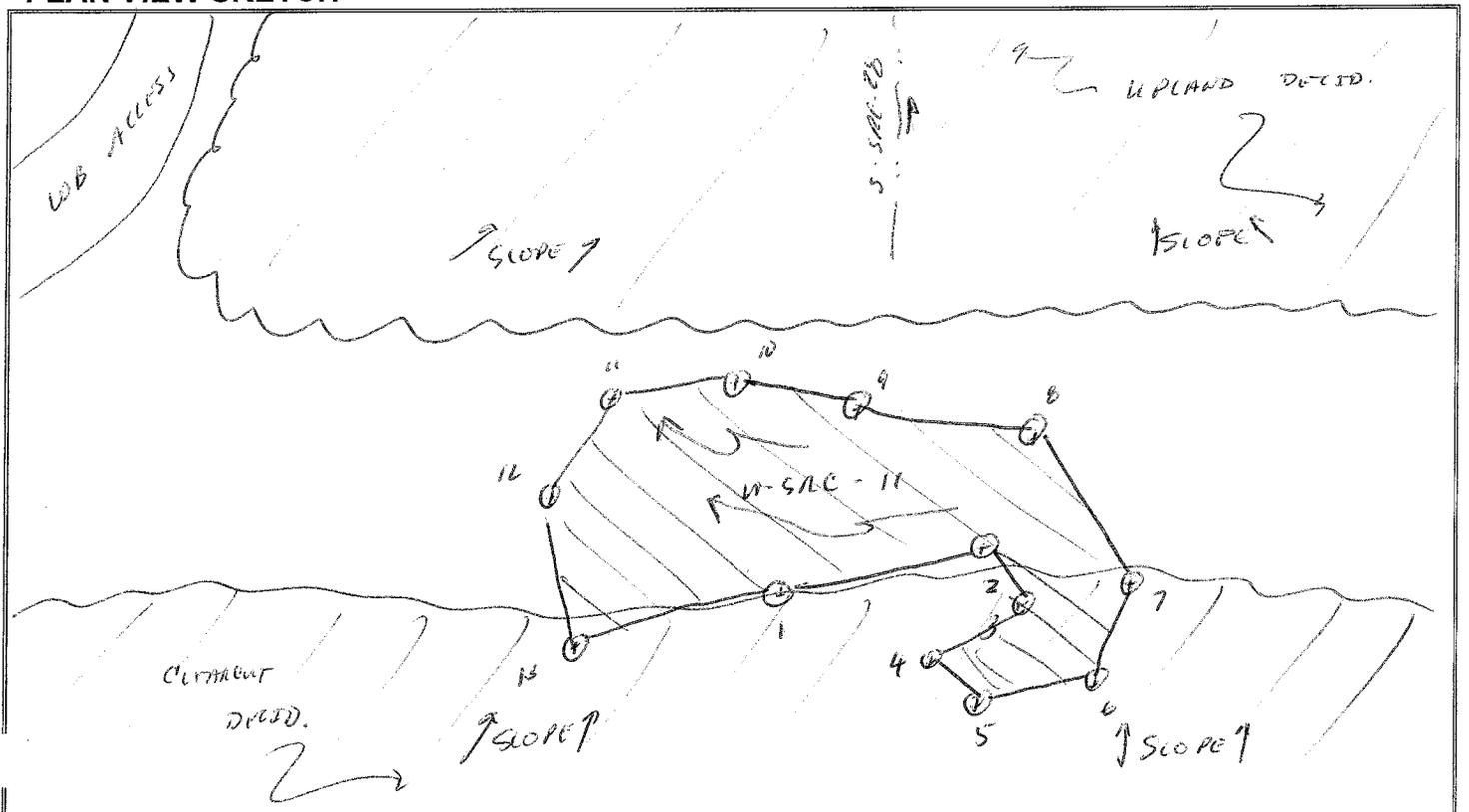
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input 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 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 4 (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: HYDROLOGY APPEARS ASSOC. w/ SPARSE SCUDS.

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

↑ W-5AC-11

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	BLACK CHERRY (PRUNUS SEROTINA)	60	Y	FACU
2	HICKORY BERRY (GAYLUSSACIA BRACATA)	30	Y	FACU
3	SWEET BERRY (BETULA LENTA)	10	N	FACU
4	RED OAK (QUERCUS RUBRA)	10	N	FACU
5				
6				

= Total Cover

Wetland Vegetation Present? Yes No

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

SOILS

Soil Survey Map Unit Name/Symbol:	Drainage Class:
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PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 4	10YR 2/1 100	- / - / - / -	-	SANDY SILT CLAY
4 - 10	2.5Y 6/3 90	10YR 5/6 10 / RM / M	FEW, FAINT	SANDY CLAY W/ASH

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 @ 6" DUE TO ROCK. WETLAND SOIL CHARACTERISTICS NOT NOTED.

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.

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)
A113	PTC ALLEGHENY TUNNEL	05.30.12	N/A	W.SRC.11	
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 spoils, 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								100 %	CI
	Score >	5	14								6.8	0.34

0.34

Comments:

LOCATED W/ IN ELECTRICAL POWERLINE ROW



W-SRC-11 overview, facing northeast.



W-SRC-11 overview, facing west-southwest.



W-SRC-11 wetland soil test pit.



W-SRC-11 upland soil test pit.

WETLAND W-SRC-12

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

Project/Site: Allegheny Tunnel		Date: 5/31/12	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLE		State: PA	
Cowardin Classification (Percentage): PSS (100)		Wetland ID #: W-SRC-12	
Climatic/Hydrologic Conditions Seasonally Typical?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are "Normal Circumstances" present? area clear cut @ 10-15 years ago			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are <input checked="" type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input checked="" type="checkbox"/> Hydrology significantly disturbed (Atypical)? due to previous clear cut			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic? NO			
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: 2 %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None slight		
Latitude: Longitude:	Datum:		
No. of Flags: 24	Photographs (with Direction of Photo or Description)		
Open Ended Flag Nos. N/A	1 - NW (SRC) 3 - Wet Pit (SRC) 2 - SE (SRC) 4 - Up Pit (KLE)		
Remarks: wetland previously disturbed by clear cutting, no apparent hydro connections			

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-SR C-12

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	X					2 (A)	
2					Total # of Dominant Species across all Strata?	3 (B)	
3					% of Dominant Species that are OBL, FACW, or FAC?	(A/B)	
4		X			Prevalence Index Worksheet		
5					Total % Cover of:	Mult. by:	
6					OBL species	1 =	
	FACW species				2 =		
		= Total Cover		FAC species	3 =		
#	Sapling Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1	X				FACU species	4 =	
2					UPL species	5 =	
3		X			Coln. Totals:	(A)	(B)
4					Prevalence Index =	B/A =	
5					X		
	= Total Cover		Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes			
#	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	Red maple (<i>Acer rubrum</i>)	50	Y	FAC	Prevalence Index is ≤3.0	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2	Sweet birch (<i>Betula lenta</i>)	40	Y	FACU	Morphological Adaptations	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
3	White oak (<i>Quercus alba</i>)	10	N	FACU	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	Cinnamon fern (<i>Osmunda cinnamomea</i>)	85	Y/N	FACW FACU	Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2	Carex intumescens	5			Remarks: Tree stratum only present along clear cut fringe, not w/in wetland → consists of red maple + white oak		
3	lowbush blueberry (<i>Vaccinium angustifolium</i>)	10	N	FACU			
4							
5							
6							
7							
8							
9							
10							
#	Woody Vine Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1	X						
2					= Total Cover		

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-SRC-12

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 - 5	7.5YR 2/1 / 100	- / - / - / -	-	silt loam
5 - 12	10YR 5/2 / 75	7.5YR 4/1 / 25 / RM / PL	common, distinct	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:

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 checked="" type="checkbox"/> High Water Table (A2)		<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)		<input type="checkbox"/> Drainage Patterns	
<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 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) in spots
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 2 (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: Appears isolated; no noted inlet or outlet			

PLAN VIEW SKETCH

Complex shape w/in clear cut -> use GPS pts for sketch

UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SRC-12 (same pt used for W-SRC-13 due to location w/in upland berm between the two wetland systems)

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	sweet birch (<i>Betula lenta</i>)	80	Y	FACU
2	red maple (<i>Acer rubrum</i>)	5	N	FAC
3	cinnamon fern (<i>Osmunda cinnamomea</i>)	40	Y	FACW
4	white oak (<i>Quercus alba</i>)	10	N	FACU
5				
6				
			135 = Total Cover	
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes 80%	<input type="checkbox"/> No	
Remarks: upland berm between two wetland systems; some wetland veg present, dominated by sweet birch				

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	— / —	— / — / — / —	—	organic
2 - 4	5Y 2.5/1 / 100	— / — / — / —	—	silt loam
4 - 15	5Y 5/2 / 100	— / — / — / —	—	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 Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: soils transitional, but don't meet hydric criteria				

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 checked="" 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 12 (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 10 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: hydrology present, but not as prevalent as in adjacent wetlands			

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)	
A117	PTC ALLEGHENY TUNNEL	05.21.12	N/A	W-SRC-12		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
SRC, 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 >	0.70	0.30																		CI	
	Score >	10	8																			0.47

Comments: LOCATED W/EN A PREVIOUS CLEAR-CUT (~15 YEARS SUCCESSION).

0.47



W-SRC-12 overview, facing northwest.



W-SRC-12 overview, facing southeast.



W-SRC-12 wetland soil test pit.



W-SRC-12 upland soil test pit.

WETLAND W-SRC-13

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

Project/Site: Allegheny Tunnel		Date: 5/31/12
Applicant/Owner: PTC		County: Somerset
Investigator(s): SRC, KLE		State: PA
Cowardin Classification (Percentage): PSS (100)		Wetland ID #: W-SRC-13
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are "Normal Circumstances" present? previous clear cut / old road bed		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are <input checked="" type="checkbox"/> Vegetation, <input checked="" type="checkbox"/> Soils, or <input checked="" type="checkbox"/> Hydrology significantly disturbed (Atypical)? previous clear cut / old road bed		
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: 2 %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	slight
Latitude: Longitude:	Datum:	
No. of Flags: 15	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A	1 - wet pit (KLE) 3 - East (KLE) 2 - wet (KLE) 4 - upl Pit (KLE - see W-SRC-12 photo)	
Remarks: wetland in previous clear cut area (10-15 yrs ago) + also appears to be located on an old road bed		

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: No apparent hydrology connections			

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-SRL-13

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	X					3 (A)
2						4 (B)
3						75 (A/B)
4						
5						
= Total Cover					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 =
= Total Cover					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
= Total Cover					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:	
					shrub species located primarily at perimeter of wetland + center (raised) portion of old road bed	
					Add. species noted in portions of wetland = <i>Juncus effusus</i> + an unidentified (<i>Carex</i> sp? (not blooming))	
= 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-SRC-13

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 - 3	10YR 8/1 100	- / - / - / -	-	loam
3 - 15	10YR 5/1 80	10YR 6/6 1 80 / RM / M	common / faint	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 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:				

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 checked="" type="checkbox"/> High Water Table (A2)		<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)		<input type="checkbox"/> Drainage Patterns	
<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: 1 (in) in spots
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 6 (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 or outlet			

PLAN VIEW SKETCH

Complex shape w/in clear cut → use GPS pts for sketch

UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SRC-13 (same pt. used for W-SRC-12 due to location w/in upland berm between the two wetland systems)

VEGETATION

#	All Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator
1	sweet birch (<i>Betula lasia</i>)	80	Y	FACU
2	red maple (<i>Acer rubrum</i>)	5	N	FAC
3	cinnamon fern (<i>Osmunda cinnamoma</i>)	46	Y	FACW
4	white oak (<i>Quercus alba</i>)	10	N	FACU
5				
6				
			135 = Total Cover	
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes <i>SDS</i>		<input type="checkbox"/> No
Remarks:				

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 -	-	organic
2 - 4	5y 2.5/1 / 100	- 1 - 1 - 1 -	-	silt loam
4 - 15	5y 5/2 / 100	- 1 - 1 - 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 Present?		<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No
Remarks: soils transitional, but don't meet hydric criteria				

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"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recorded Data (Describe in Remarks)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Aerial Photographs	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Other - (i.e., well data)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Other	<input type="checkbox"/> Dry-Season Water Table (C2)	<input checked="" type="checkbox"/> No Recorded Data Available	
<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		
FIELD OBSERVATIONS				
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)	
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 12 (in)	
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 10 (in)	
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Remarks: hydrology present, but not as prevalent as in adjacent wetlands				



W-SRC-13 overview, facing east.



W-SRC-13 overview, facing west.



W-SRC-13 wetland soil test pit.



W-SRC-13 upland soil test pit.

WETLAND W-SRC-14

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

Project/Site: Allegheny Tunnel		Date: 5/31/12
Applicant/Owner: PTC		County: Somerset
Investigator(s): SRC, KLE		State: PA
Cowardin Classification (Percentage): PEM (100)		Wetland ID #: W-SRC-14
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 checked="" type="checkbox"/> Vegetation, <input checked="" type="checkbox"/> Soils, or <input checked="" type="checkbox"/> Hydrology significantly disturbed (Atypical)? previous clearcut / partially on power line		
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic? NO		
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	very slight
Latitude: Longitude:	Datum:	
No. of Flags: 12	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A	1 - wet pit (KLE) 3 - NW (KLE) 2 - south (KLE) 4 - UPL pit (KLE)	
Remarks: wetland along & within power line, disturbed area from past clear cut @ 10-15 yrs ago + powerline cut		

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-14

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 =				
				= 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					Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
				= 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					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	Cinnamon Fern (<i>Osmunda cinnamomea</i>)	40	Y	FACW	Woody Vine – All woody vines					
2	Swamp Dewberry (<i>Rubus hispidus</i>)	40	Y	FACW	Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
3	Latex Intussuscep	20	Y	FACW						
4					Remarks: portion of wetland w/in clear cut has shrub boundary (primarily sweet birch)					
5										
6										
7										
8										
9										
10										
				100 = 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-SRC-14

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	- / -	- / - / - / -	-	Organic
1 - 3	10YR 3/2 100	- / - / - / -	NA	silt loam
3 - 15	10YR 5/1 75	10YR 4/6 85 / BM PL	Rw / distinct	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 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) | |

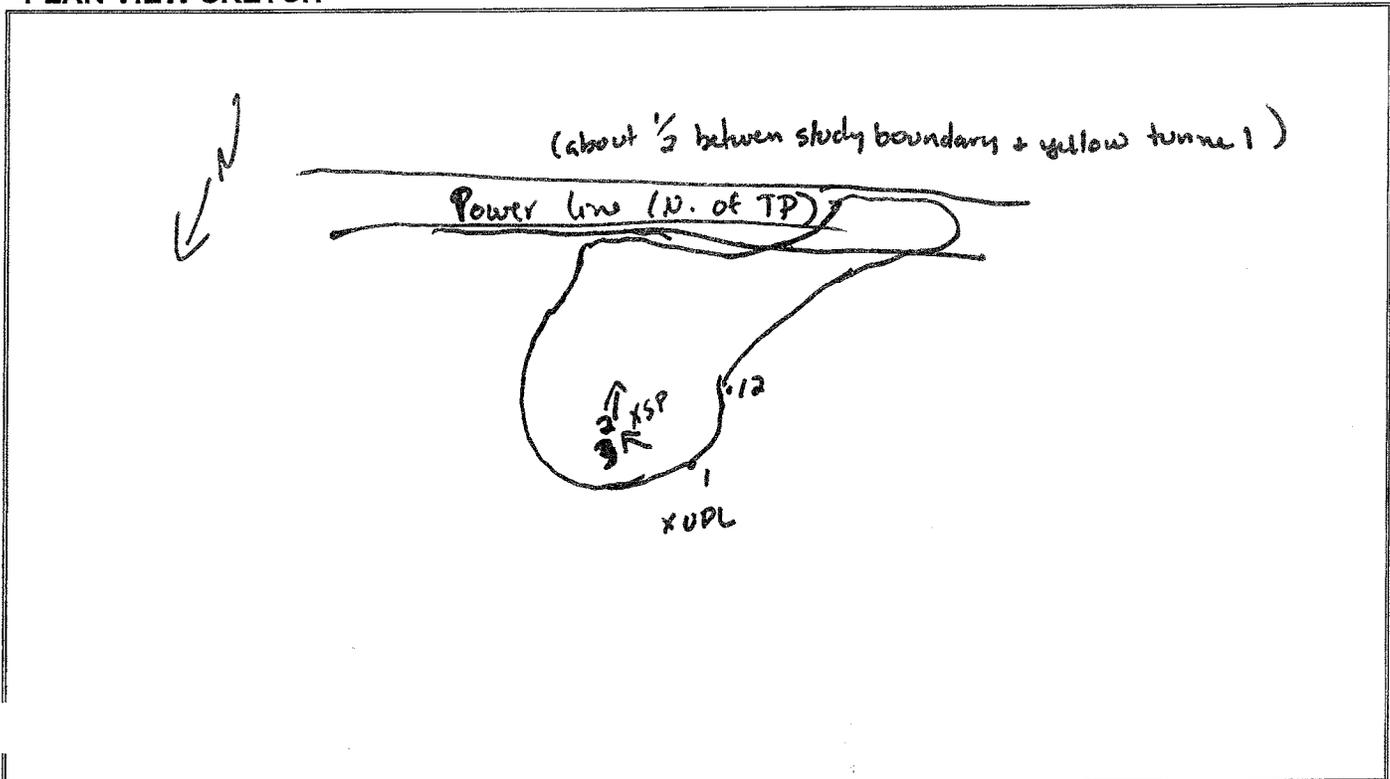
Hydric Soil Present? Yes No

Remarks:

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 checked="" type="checkbox"/> High Water Table (A2)		<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)		<input type="checkbox"/> Drainage Patterns	
<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: <u> </u> (in)
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: <u>7</u> (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: <u>0</u> (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: <u>Apparently isolated ; no inlet or outlet</u>			

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SRC-14

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	Sweet Birch (<i>Betula lenta</i>)	50	Y	FACU
2	Red Oak (<i>Quercus rubra</i>)	5	N	FACU
3	White Oak (<i>Quercus alba</i>)	5	N	FACU
4	Cinnamon Fern (<i>Osmunda cinnamomum</i>)	10	N	FACU
5				
6				
		100 = Total Cover		
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: Wetland Vegetation IS PRESENT BUT NOT DOMINANT (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 - 1	- / -	- / - / - / -	-	organic
1 - 12	10YR 4/2 100	- / - / - / -	N/A	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: Soils transitional but do not meet hydric criteria				

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: 0 (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 hydrology noted			

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)	
A113	PTC ALLEGHENY TUNNEL	05.31.12	N/A	W-SRC-14		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
SRC, KLF				APPARENTLY ISOLATED.		

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												CI
	Score >	5	7												0.28

Comments: LOCATED W/IN POWERLINE ROW.



W-SRC-14 overview, facing north-west.



W-SRC-14 overview, facing south.



W-SRC-14 wetland soil test pit.



W-SRC-14 upland soil test pit.

WETLAND W-SRC-15

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

Project/Site: Allegheny Tunnel		Date: 5/31/12	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLE		State: PA	
Cowardin Classification (Percentage): PEM (100)		Wetland ID #: W-SRC-15	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input checked="" type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input checked="" type="checkbox"/> Hydrology significantly disturbed (Atypical)? Previously clear cut area			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic? NO			
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: %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	slight	
Latitude: Longitude:	Datum:		
No. of Flags: 5	Photographs (with Direction of Photo or Description)		
Open Ended Flag Nos. N/A	1 - wet pit (KLE) - west (KLE) 2 - south (KEE) 4 - vdr pit (KLE)		
Remarks: small depressional pocket (closed) in clear cut area			

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 #:
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	10YR 3/2 / 100	- / - / - / -	N/A	loam
2 - 12	10YR 5/1 / 60	10YR 4/6 40 / D / M	common / distinct	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 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:

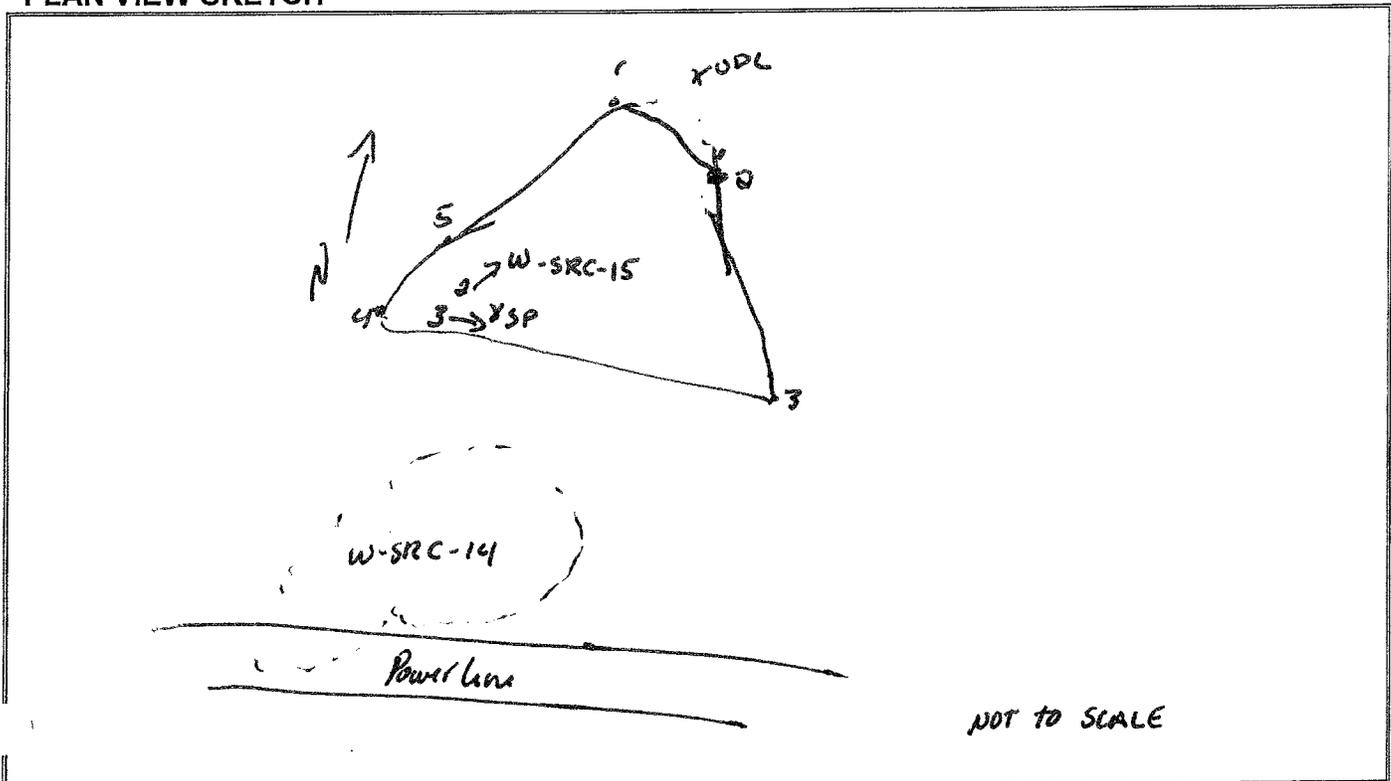
HYDROLOGY

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 checked="" type="checkbox"/> High Water Table (A2)		<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)		<input type="checkbox"/> Drainage Patterns	
<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 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) in spots
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 6 (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 or outlet

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point **W-SRC-15**

VEGETATION

#	All Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator
1	Red Maple (<i>Acer rubrum</i>)	40	Y	FAC
2	Red Oak (<i>Quercus rubra</i>)	30	Y	FACU
3	Sweet Birch (<i>Betula lenta</i>)	30	Y	FACU
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 (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 - 4	2.5Y 3/2 / 100	- / - / - / -	-	silty loam
4 - 12	2.5Y 5/3 / 65	10YR 5/8 / 35 / RM / PL	many, bright	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 checked="" type="checkbox"/> Yes		<input checked="" type="checkbox"/> No
Remarks: marginal soils, do not meet hydric criteria				

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"/> Shallow Aquitard	<input type="checkbox"/> Geomorphic Position (D2)
<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"/> FAC-Neutral Test
<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"/> Other
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
		<input type="checkbox"/> Other - (i.e., well data)	<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: Hydrology absent			



W-SRC-15 overview, facing south.



W-SRC-15 overview, facing west.



W-SRC-15 wetland soil test pit.



W-SRC-15 upland soil test pit.

WETLAND W-SRC-16

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

Project/Site: Allegheny Tunnel		Date: 5/31/12	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLE, PSS		State: PA	
Cowardin Classification (Percentage): PSS (100)		Wetland ID #: W-SRC-16	
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 checked="" type="checkbox"/> Vegetation, <input checked="" type="checkbox"/> Soils, or <input checked="" type="checkbox"/> Hydrology significantly disturbed (Atypical)? in clear cut			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic? NO			
NWI Classification: (if applicable)			
Landform/Gemorphic 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 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: 6 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None slight	
Latitude: Longitude:		Datum:	
No. of Flags: 6		Photographs (with Direction of Photo or Description) 1 - wet pit (KLE) 3 - North (KLE) 2 - NW (KLE) 4 - UPL pit (SRC)	
Open Ended Flag Nos. N/A			
Remarks: small depressional system diffuses out let to hillside seep (seep continues downslope @ 75 ft ; no further hydro connection			

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-16

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	X				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 =		
					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	X				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		
					Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
#	Shrub Stratum Species Common Name (<i>Genus species</i>)	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	X				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 (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Woody Vine – All woody vines			
1	Swamp dewberry (<i>Rubus hirsutus</i>)	50	Y	FACW	Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
2	Carex intumescens	50	Y	FACW				
3					Remarks: PSS wetland due to canopy coverage by surrounding shrubs, sweet birch, red maple. Per USACE Supplement canopy @ 70% provided by BEARD SHAW IMMED. OUTSIDE OF WETLAND BOUNDS.			
4								
5								
6								
7								
8								
9								
10								
							100 = Total Cover	
#	Woody Vine Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator				
1								
2	X							
					= Total Cover			

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-SRC-16

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 - 12	25Y 4/1 / 60	25YR5/8 / 40 / RM / M	common / bright	sandy 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)

<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
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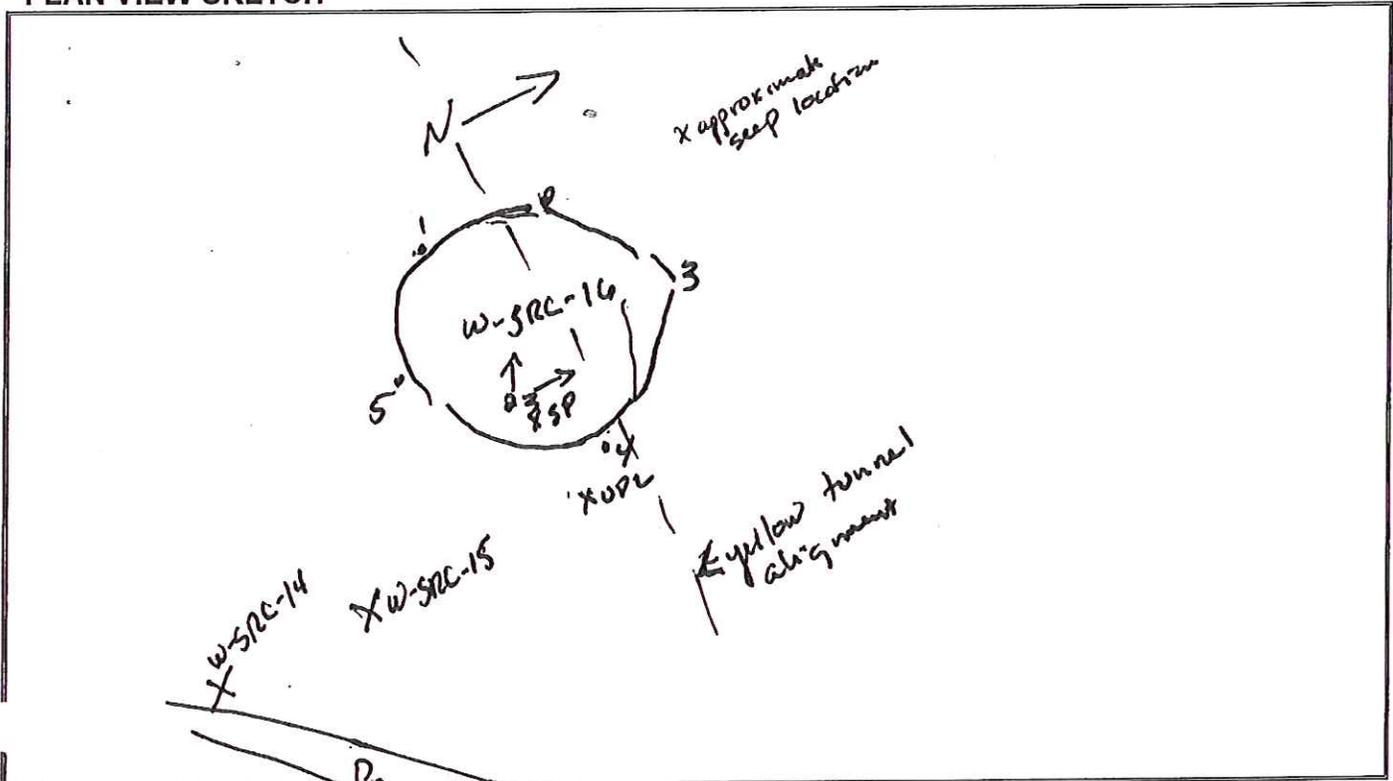
Remarks:

WETLAND ID #: W-SRC-16

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 checked="" type="checkbox"/> High Water Table (A2)		<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)		<input checked="" type="checkbox"/> Drainage Patterns	
<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: 1 (in) in spots
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 0 (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, but diffuse outlet present to hillside seep - no dg. connection noted			

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SRC-16

VEGETATION

#	All Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator
1	Red Oak (<i>Quercus rubra</i>)	100	Y	FACU
2				
3				
4				
5				
6				
Wetland Vegetation Present?		<input type="checkbox"/> Yes	100 = Total Cover <input checked="" type="checkbox"/> No	
Remarks: Wetland veg. not present				

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	-	organic
1 - 5	10YR 3/2 100	- 1 - 1 -	-	silty loam
5 - 6	2.5Y 5/2 85	10YR 5/6 15 / RM / M	common, faint	silty 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 checked="" type="checkbox"/> No
Remarks: refusal at 6" due to tree roots ; hydric soils present, marginal, dry				

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: hydrology not present			



W-SRC-16 overview, facing north.



W-SRC-16 overview, facing northwest.



W-SRC-16 wetland soil test pit.



W-SRC-16 upland soil test pit.

WETLAND W-SRC-17

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

Project/Site: Allegheny Tunnel		Date: 06.09.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SAC, DLM, JRG		State: PA
Cowardin Classification (Percentage): PEM (100)		Wetland ID #: W-SRC-V7
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)? POWERLINE ROAD BR		
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 %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:	Datum:	
No. of Flags: 5	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A	1 - SE 3 -	2 - WSW 4 -
Remarks: MAINTAINED VIA MOWING / HERBICIDE APP. - POWERLINE ROAD		

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: NOTED SUBSURFACE FLOW & CURVE - ASSUMED TRANS. TO S-SRC-3/			

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-17

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 - 1	- / -	- / - / - / -	-	-
1 - 5	2.5Y 5/2 100	- / - / - / -	-	SILT LOAM
5 - 6.5	10YR 4/2 1 85	7.5YR 4/6 1 15 / RM / PL	COMMON, PROMINENT	SILT LOAM w/ SAND
-	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)

- 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 @ 6.5" DUE TO ROCK COMPACTION DUE TO ROW AL USE.

WETLAND ID #:

W. SRC-17

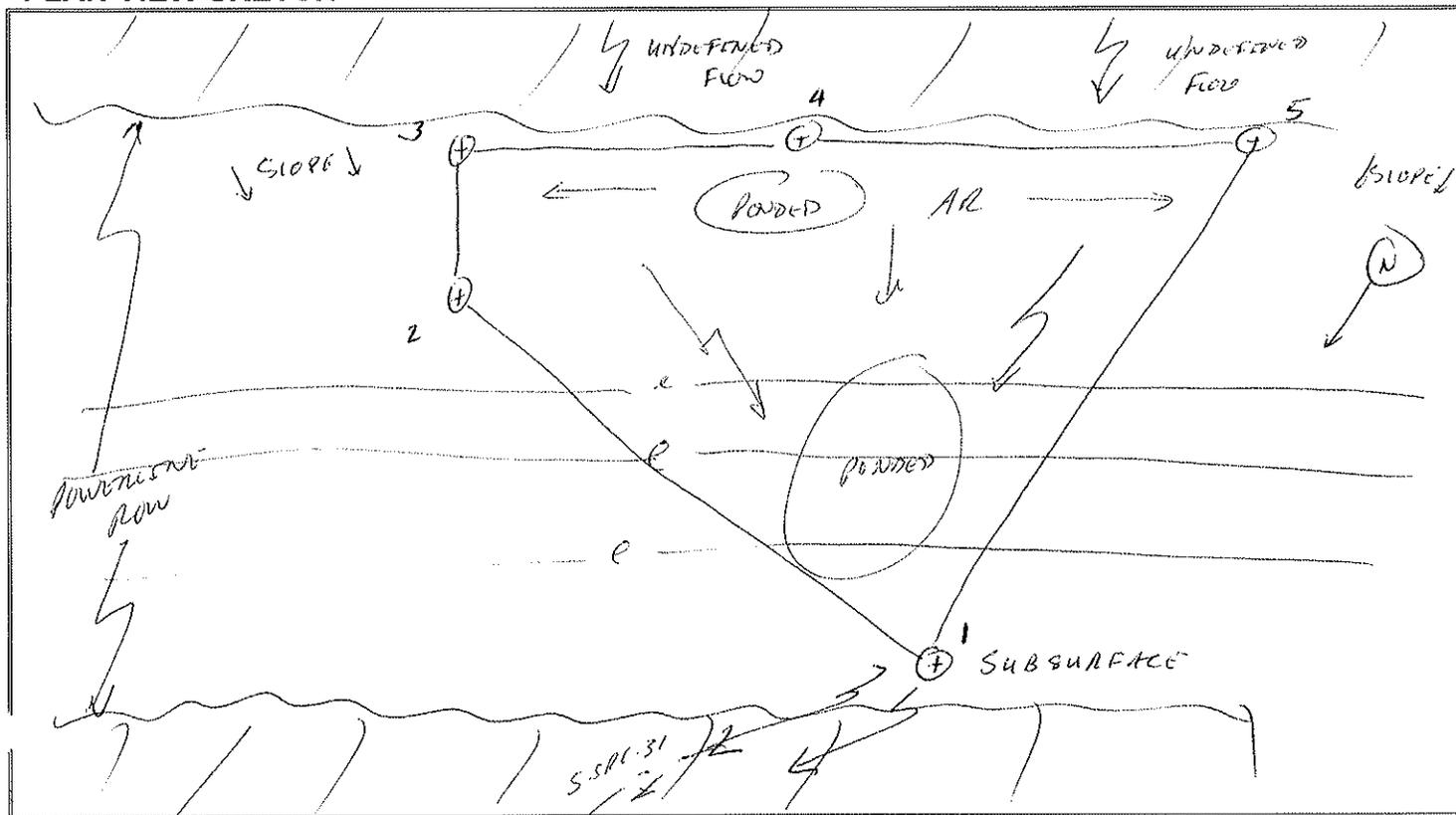
HYDROLOGY

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 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 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 checked="" type="checkbox"/> Other <i>SUBSURFACE FLOW @ OUTLET</i>	
<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: <i>4</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>2</i> (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: *SUBSURFACE FLOW @ OUTLET, PRESUMED TO S.SRC-31.*

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W.S.R.C. 17.

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	HAY-SCENTED FERN (DENNSTAEDTIA PUNDTLOBULA)	45	Y	FACU
2	MTN. LAUREL (KALMIA LATIFOLIA)	5	N	FACU
3	RUBUS SP.	5	N	—
4	SWEET FERN (COMPTONIA PEREGRINA)	10	N	—
5	DOGbane (APOCYNUM CANNIBENNUM)	10	N	FACU
6	MUNDSWORTHY (GAYLUSSACIA BACATA)	15	N	FACU
		= 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 - 6	5YR 2.5/1 100	- 1 - 1 - 1 -	-	SANDY SILT
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: REFUSAL @ 6" DUE TO ROCK/ROOTS. NO WETLAND SOIL CHARACTERISTICS.				

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 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	06.08.12	N/A	W.SRC.17	
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:	
SAC, KLE, DLM				ASSOC. W/ STREAM S.SRC.31.	

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 >	0.90	0.10								100	CI
	Score >	5	9								54	0.00

Comments: LOCATED W/IN ELECTRICAL POWERLINE ROW.



W-SRC-17 overview, facing southeast.



W-SRC-17 overview, facing west-southwest.



W-SRC-17 wetland soil test pit.



W-SRC-17 upland soil test pit.

WETLAND W-SRC-18

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

Project/Site: Allegheny Tunnel		Date: 06.09.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRF, DUM, JRB		State: PA	
Cowardin Classification (Percentage): Am (100)		Wetland ID #: W-SAC-18	
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: 3 %		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 -
		2 - SW	4 -
Remarks: ASSOC. W/ S-SAC-23, 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: JURISDICTIONAL - ADD. TO S-SAC-23					

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-18

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	7.5YR 5/2 1 90	5YR 4/6 1 10 1 RM 1 PL	Common, Discontinuous	SANDY LOAM
4 - 12	2.5Y 6/2 1 70	7.5YR 5/8 1 30 1 RM 1 PL	Many, Discontinuous	SANDY 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 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
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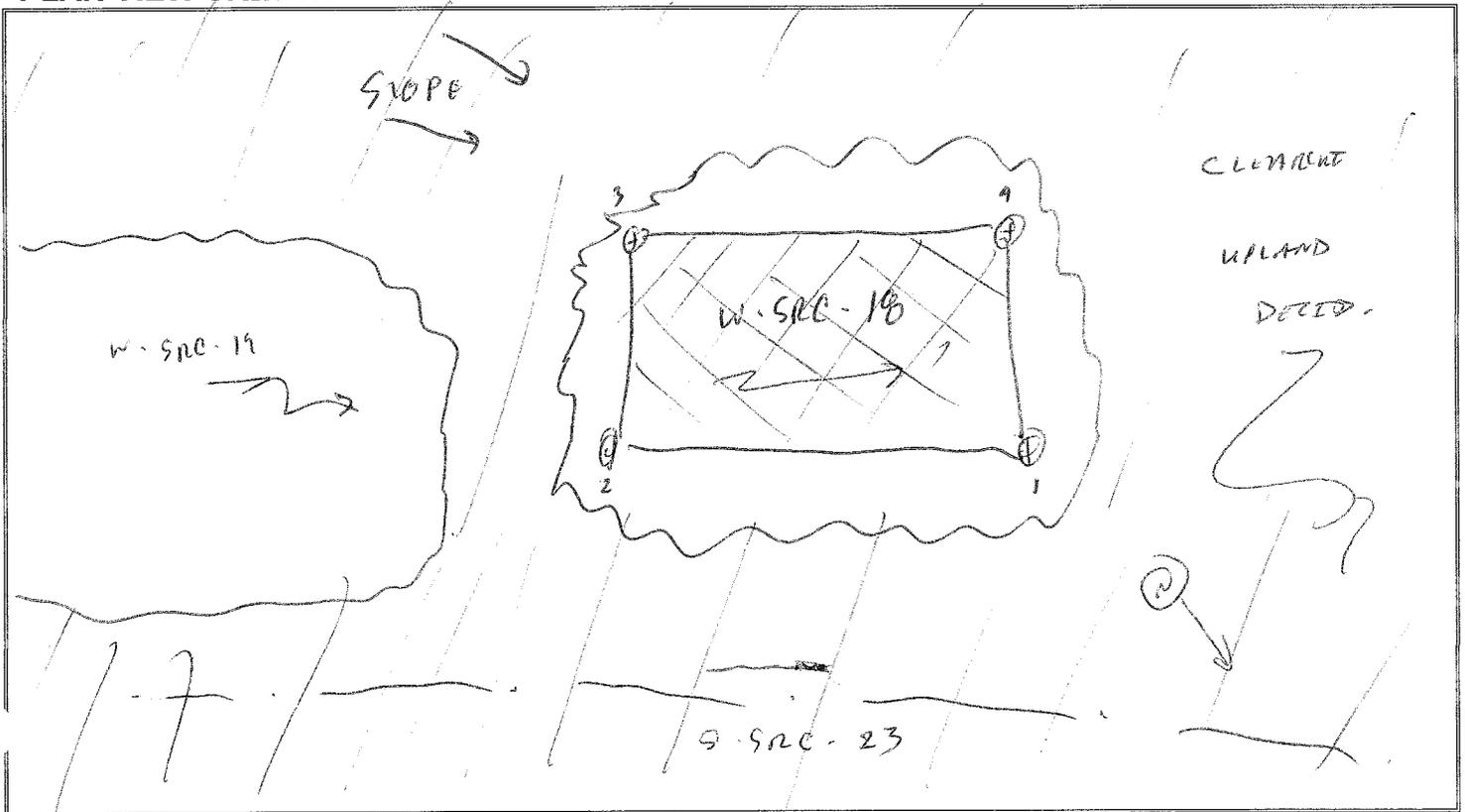
Remarks:

WETLAND ID #: W-SRC-19

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 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 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 checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input checked="" 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: 3 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: ASSOC. W/ S. SRC. 23 (ADJ.)			

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

2 W-320-12

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	RUBUS SP.	70	Y	-
2	SWEET BIRCH (BETULA LINDA)	20	Y	FACU
3	RED OAK (QUERCUS RUBRA)	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 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 - 5	10YR 4/2 100	- 1 - 1 - 1 -	-	SANDY CLAY
5 - 8	10YR 4/2 100	10YR 5/1 20 1RM 1 PL	COMMON, HOMOGENEOUS	SANDY 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 checked="" type="checkbox"/> Yes		<input type="checkbox"/> No
Remarks: WETLAND SOIL IS 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 HYDRO 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)
A115	PTR ALLEGHENY TUNNEL	06.08.12	N/A	W.SRC-19	
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:	
SAC, DLM, JRG				ASSOC. W/ STREAM S.SRC-33.	

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							100 %	CI
	Score >	7	9							7.5 000	0.00

0.30

Comments: LOCATED W/IN CLEAR-CUT AREA (~15 YRS. OF SUCCESSION)



W-SRC-18 overview, facing northeast.



W-SRC-18 overview, facing west-southwest.



W-SRC-18 wetland soil test pit.



W-SRC-18 upland soil test pit.

WETLAND W-SRC-19

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

Project/Site: Allegheny Tunnel		Date: 06.08.2020
Applicant/Owner: PTC		County: Somerset
Investigator(s): SAC, DLM, JRB		State: PA
Cowardin Classification (Percentage): PEM (100%)		Wetland ID #: W-SAC-19
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%	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-
	2- W	4-
Remarks: USE W-SAC-19 UPLAND SOIL PIT.		

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: ASSOC. W/ S-SAC-23 (ADJ.)					

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-19

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 - 3	2.5Y 5/3 1 90	7.5YR 5/2 1 70 1 RM 1 PL	FEW, BRIGHT	CLAY LOAM
3 - 6	2.5Y 6/2 1 70	7.5YR 5/2 1 30 1 RM 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 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: REFUSAL @ 6" Due TO ROCK.

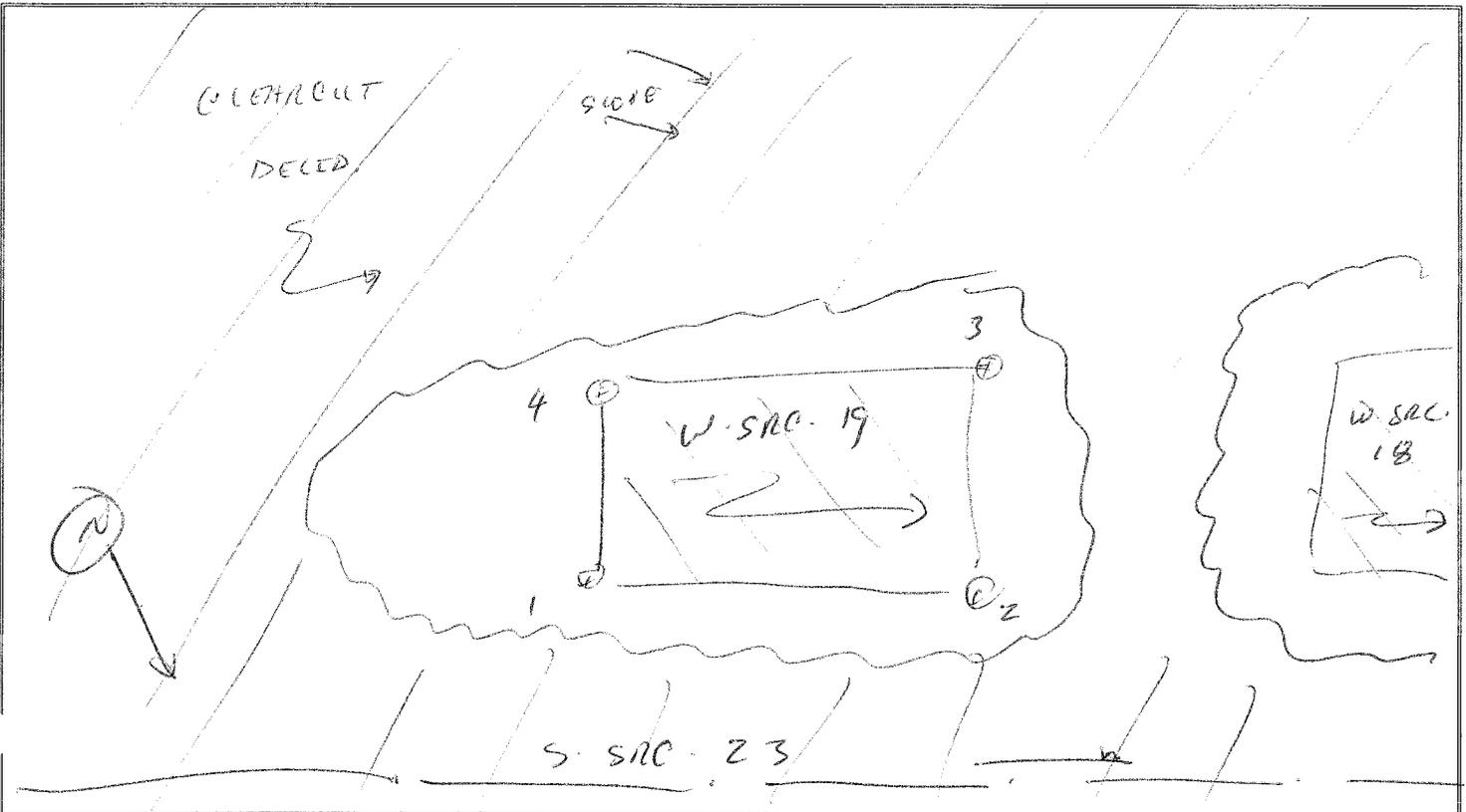
WETLAND ID #:

W-SAC-19

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 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 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 checked="" type="checkbox"/> Other <i>ADJ. TO S-SAC-23</i>	
<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: 4 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: <i>ADJ TO S-SAC-23 - JURISDICTIONAL</i>			

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

VEGETATION L W-SAC-19 (UPLAND SAMPLE PT. FOR W-SAC-18)

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	Rubus sp.	10	Y	-
2	SWEET BIRCH (BETULA LENTHA)	20	Y	FACU
3	RED OAK (QUERCUS RUBRA)	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 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 - 5	10YR 4/2 1 100	- 1 - 1 - 1 -	-	SANDY CLAY
5 - 8	10YR 4/2 1 80	10YR 5/4 1 20 1 dm / PL	Common, prominent	SANDY 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: WETLAND SOIL IS 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 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)
A115	PTC ALLEGHENY TUNNEL	06.08.12	N/A	W.SRC.19	
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:	
SAC, DLM, JRB				ASSOC. W/ STREAM S.SRC. 23	

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 spoils, 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 >	0.60	0.40					100 %	CI
	Score >	7	9					7.8	0.00

Comments: LOCATED W/IN A CLEAR-CUT (~ 15 YEARS OF SUCCESSION).

0.39



W-SRC-19 overview, facing northeast.



W-SRC-19 overview, facing west.



W-SRC-19 wetland soil test pit.

WETLAND W-SRC-20

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

Project/Site: Allegheny Tunnel		Date: 06.08.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SRC, DLM, JRG		State: PA
Cowardin Classification (Percentage): PLM (100)		Wetland ID #: W-SRC-20
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 %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude:	Longitude:	
Datum:	Photographs (with Direction of Photo or Description)	
No. of Flags: 7	1- SW	3-
Open Ended Flag Nos. N/A	2- NE	4-
Remarks: NOTED SPAGNUM.		

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: ADJ TO S-SRC-23 - JURISDICTIONAL. OUTLET TO W-SRC-19			

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. 20

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 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:	
#	Herb Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1	SWAMP DROBERRY (<i>ERIGON HESPERUS</i>)	30	Y	FACW		
2	SPAGNUM (<i>LYCOPODIUM SPUNDATA</i>)	25	Y	OBL		
3	PHIMALES ALUNDALCA	20	Y	FACW		
4	INT. FERN (<i>OSMUNDA CLAYTONIANA</i>)	10	N	FAC		
5	SOFT RUST (<i>JUNCUS EFFUSUS</i>)	10	N	FACW		
6	RED MAPLE (<i>ACER RUBRUM</i>)	5	N	FAC		
7						
8						
9						
10						
					= 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 · SRC · 20

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 3/1 100	- / - / - / -	-	SELT LOAM
4 - 12	10YR 5/2 80	10YR 5/6 20 / RM / PL	COMMON, DISTINCT	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 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. SRC. 20*

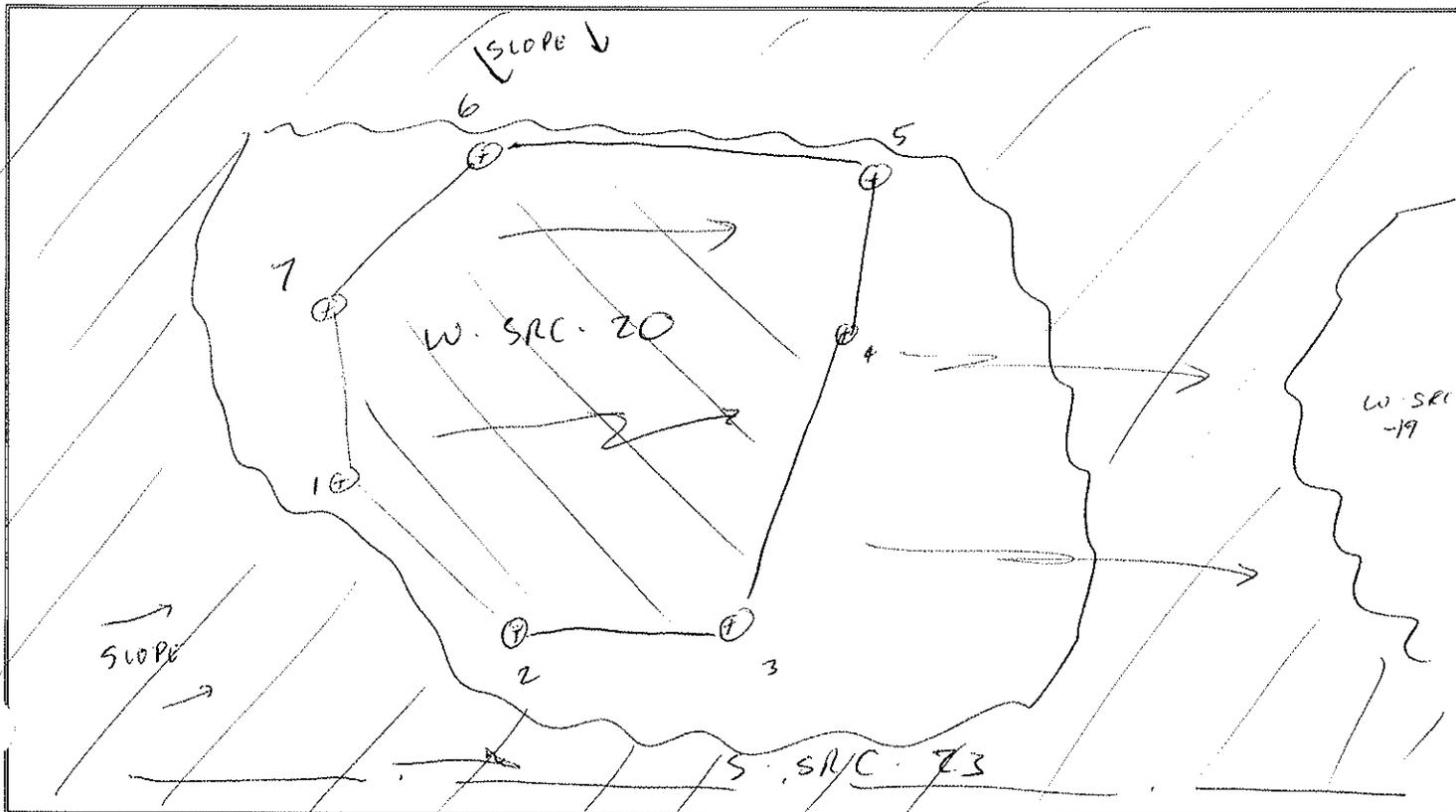
HYDROLOGY

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 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: <i>2</i> (in)
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: <i>3</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: *ASSOC. W/S-SRC-23 (ADJ) - JURISTRICTUAL.*

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

VEGETATION

W-SRL-20

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SWEET BUSH (PETULA LANCEA)	55	Y	FACU
2	RED OAK (QUERCUS RUBRA)	30	Y	FACU
3	SWAMP Dewberry (RUSSUS HESPERUS)	15	N	FALW
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND Veg. IS NOT 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
-	1	1 1 1		
-	2.5Y 4/2 1 90	10YR 4/6 1 70 1 RM 1 M	FEW, DULL	SANDY CLAY
-	2.5Y 5/3 1 70	7.5YR 4/6 1 30 1 RM 1 M	COMMON, BRASSH	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: SAMPLE POINT DOES NOT HAVE WETLAND SOIL CHARACTERISTICS.				

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"/> 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"/> 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 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"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Aerial Photographs	
<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 Hydrology NOTED @ SAMPLE PT.			



W-SRC-20 overview, facing northeast.



W-SRC-20 overview, facing southwest.



W-SRC-20 wetland soil test pit.



W-SRC-20 upland soil test pit.

WETLAND W-SRC-21

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

Project/Site: Allegheny Tunnel		Date:	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SAC, D. M. JRB		State: PA	
Cowardin Classification (Percentage): Pm (100)		Wetland ID #: W-SAC-21	
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:		Datum:	
No. of Flags: 17		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - WSW 3 - 2 - SE 4 -	
Remarks: PREVIOUSLY DISTURBED VIA LOGGING ~ 1990.			

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: ASSOC. W/ S-SRC-23 (ADJ.). POSSIBLY JURISDICTIONAL.					

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 #: 77-SAC-21

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 =	
					FACW species	2 =	
					FAC species	3 =	
					FACU species	4 =	
					UPL species	5 =	
					Corr. 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:		
#	Herb Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1	CAREX CRISTATA	40	Y	OBL			
2	SWAMP BENTONIA (RUBUS H-STRIPUS)	20	Y	FACW			
3	OSUNNON FERN (OSMUNDA (SAMANOKA))	10	N	FACW			
4	SOFT RUSH (JUNCUS EFFUSUS)	10	N	FACW			
5	WATER WICK BENTONIA SOLIDAGO SP	10	N	-			
6	SPAGNUM (CYLOPODIUM INVANDATA)	10	N	OBL			
7							
8							
9							
10							
					= 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. 21

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	2.5Y 3/1 / 100	- / - / - / -	MANY, BRIGHT -	SILT LOAM
4 - 10	2.5Y 6/1 / 70	10YR 5/8 / 30 / RM / M	MANY, BRIGHT	LOAMY 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"/> Histic Epipedon (A2) | <input type="checkbox"/> Polyvalue Below Surface (S8) |
| <input checked="" type="checkbox"/> Sulfidic Odor (A4) | <input type="checkbox"/> Thin Dark Surface (S9) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> 2 cm of Muck (A10) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Iron-Manganese Masses (F12) |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Umbric Surface (F13) |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) |
| <input type="checkbox"/> Dark Surface (S7) | <input type="checkbox"/> Other |

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-SAC-21

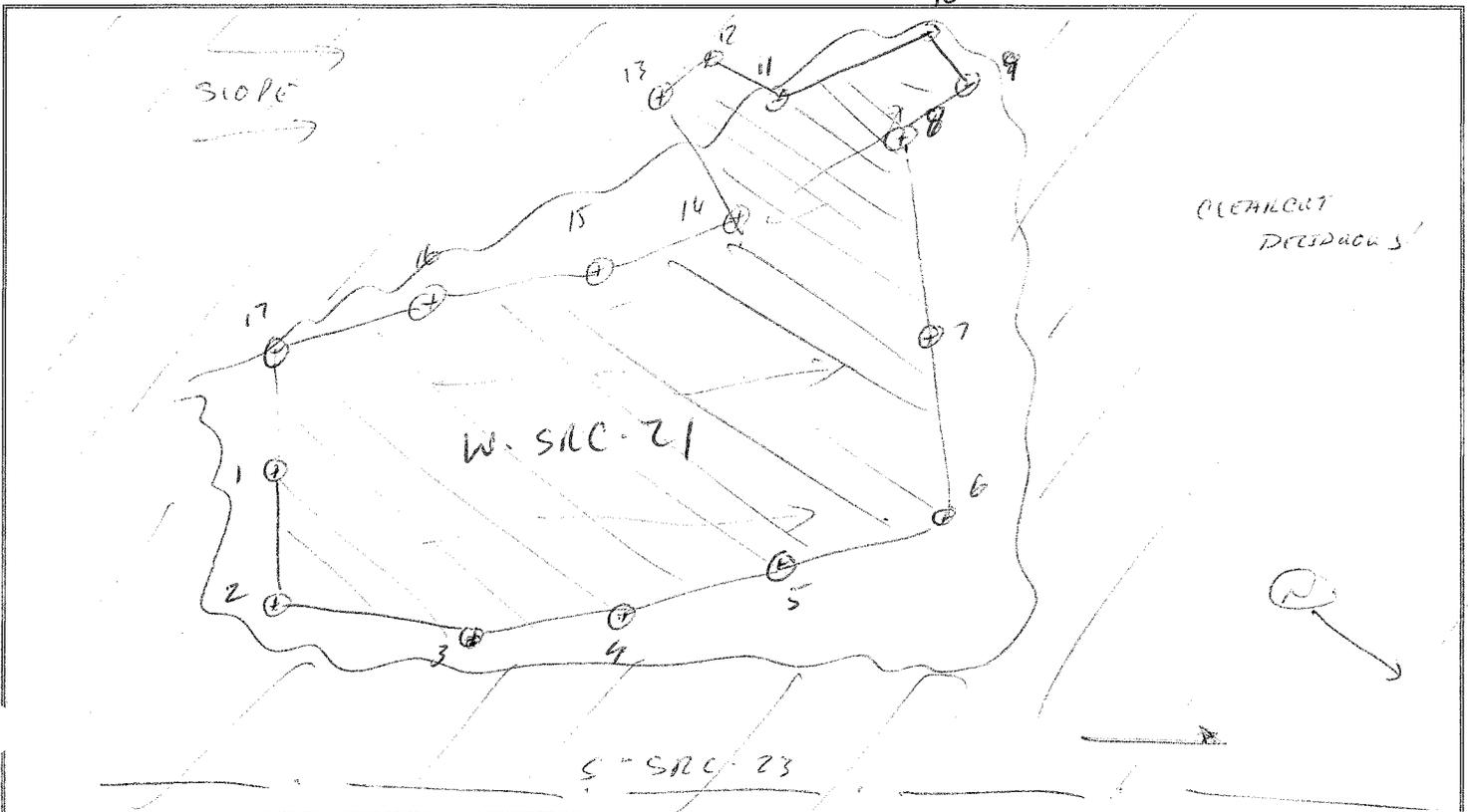
HYDROLOGY

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"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input 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 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 checked="" 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 checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Other <i>HYDROGEN SULFIDE ODOR</i>	<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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: <i>2</i> (in)
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: <i>3</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: *ASSOC. w/ S-SAC-23 (ADJ.)*

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W. SAC. 21

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SWEET GEDERA (BETULA LENTA)	70	Y	FACU
2	RUBUS SP.	15	N	-
3	HAY-STEMMED BERN (DIPNOSTAGDIA PUNCTULOBULA)	15	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 - 2	1	1 1 1		
2 - 3	10YR 2/1 100	- 1 - 1 - 1 -	-	SILT WITH
3 - 6	2.5Y 5/2 100	- 1 - 1 - 1 -	-	SILT WITH W/BR
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: REFUSAL @ 6" DUE TO ROCK. WETLAND SOIL NOT PREC.				

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 HYDRO 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)
A115	PTC ALLEGHENY TUNNEL	06.08.12	N/A	W-SRC-21	
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:	
SAC, PLM, JRG				ASSOC. W/ STREAM S. SRC. 23	

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 >	0.60	0.40									100%	CI
	Score >	7	9									7.8	0.39

0.39

Comments: LOCATED W/IN CLEAR-CUT (~15 YEARS OF SUCCESSION).



W-SRC-21 overview, facing southeast.



W-SRC-21 overview, facing west-southwest.



W-SRC-21 wetland soil test pit.



W-SRC-21 upland soil test pit.

WETLAND W-SRC-22

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

Project/Site: Allegheny Tunnel		Date: 07.08.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLR		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W15RC-22	
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)? 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 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 checked="" type="checkbox"/> Other - OLD LOGGING ROAD		
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. N/A		1 - SE 3 - WETLAND DET 2 - NE 4 - UPLAND DET	
Remarks:			

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: NO APPARENT INLET/OUTLET - ISOLATED.					

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-22

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?	1 (A)
2					Total # of Dominant Species across all Strata?	1 (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 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 PROVIDED BY SILVER MAPLE, SOME WHITE OAK, & AM. IRONWOOD OUTSIDE OF BOUNDARY. CANOPY @ ~95%. FOR USAGE PERSONAL SUPPLEMENT, CANOPY & 70% PROVIDED BY TREES IMMED. OUTSIDE WETLAND BOUNDS → PFO RESOURCE.	
					Herb Stratum Species	
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1	CAREX LURIDA	40	Y	OBL		
2	ROUNTHORN CUDDEWED (SOLIDAGO RUBESA)	10	N	OBL		
3	SWAMP DEWWEED (RUBUS HISPIDUS)	15	N	FACW		
4	CAREX SP.	10	N	-		
5	NORTHERN BUDLEWED (CYLOPUS UNIFLORUS)	10	N	OBL		
6						
7						
8						
9						
10						
		65			= 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. 22

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 - 12	7.5YR 4/4 1 90	5M 4/6 1 10 1 RM 1 PL	common, dull	Clay w/ silt
-	1	1 1 1		
-	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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks:	Red Parent Material? Sediment Deposition @ Low Point.	

WETLAND ID #: W.S.R.C. 22

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

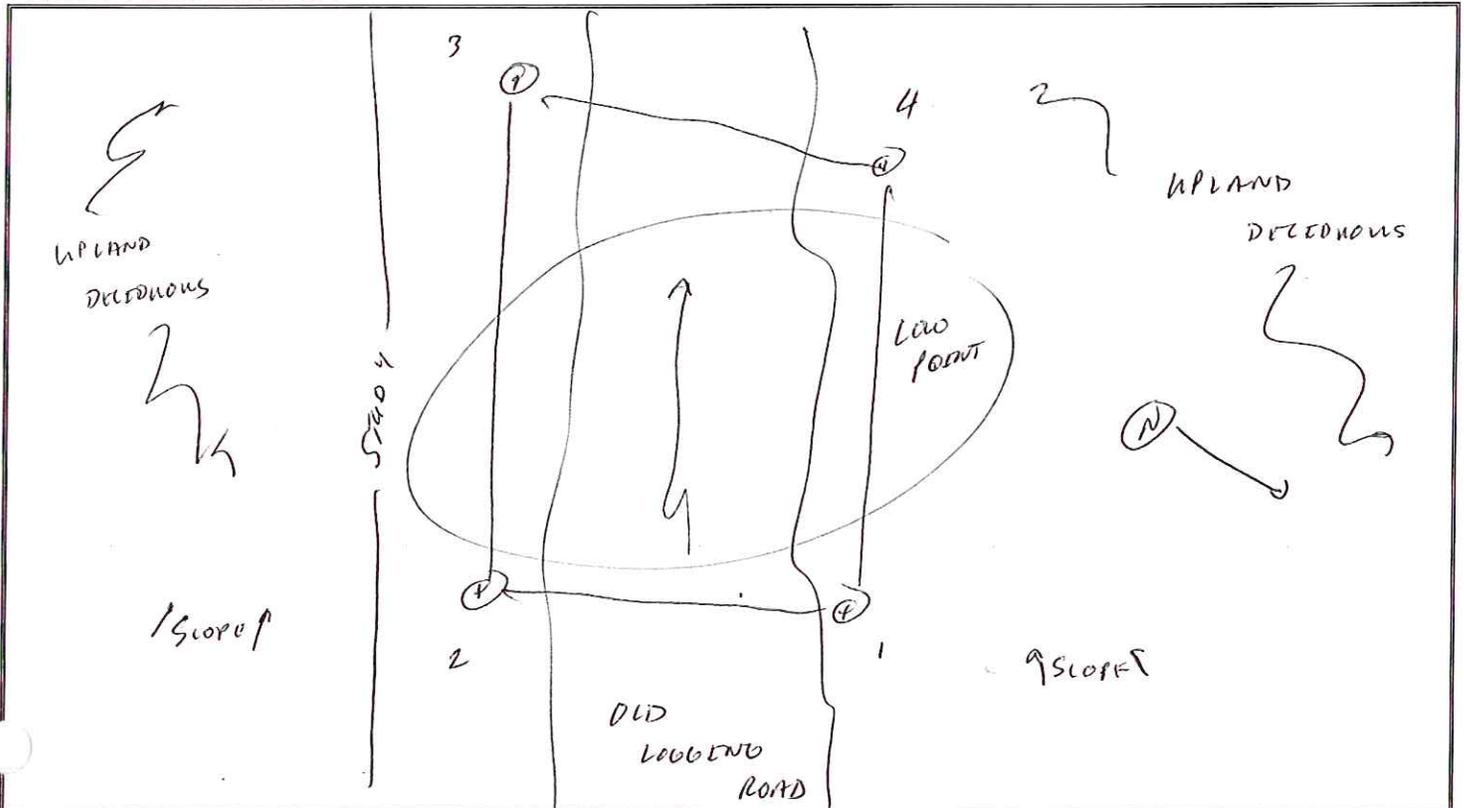
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (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 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 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: ① (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

VEGETATION

W.SAC-22

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SILVER MAPLE (ACER SACCHARINUM)	60 - T	Y	FALW
2	BLACK BIRCH (BETULA LONITA)	40 - T	Y	FALU
3	SWAMP DEWBERRY (RUBUS HISPIDUS)	60 - H	Y	FAC
4	ROXBURGH BORAGE (SOLIDAGO RUBROSA)	40 - H	Y	OBI
5				
6				
			= Total Cover	
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: WETLAND VEG PRESENT - AND DOMINANT @ SAMPLE PT. (50/25)				

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 - 11	7.5YR 4/6 / 100	- / - / - / -	-	STUR 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: NO SOILS EXHIBITING WETLAND CHARACTERISTICS @ 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 HYDROLOGY NOTED @ SAMPLE PT.			



W-SRC-22 overview, facing northeast.



W-SRC-22 overview, facing southeast.



W-SRC-22 wetland soil test pit.



W-SRC-22 upland soil test pit.

WETLAND W-SRC-23

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

Project/Site: Allegheny Tunnel		Date: 07.05.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SAC ILEW		State: PA
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W-SAC 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 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 %	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- SSW	4- UPLAND PIT
Remarks: ASSOC. W/ OFF-SITE STREAM - 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-23
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	2.5 Y 2.5 / 11 / 100	- / - / - / -	-	SILTY LOAM
5 - 12	10 YR 5 / 11 / 90	7.5 YR 4 / 10 / 10 / RM / PL	COMMON, DIST	SILTY 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. SAC-23

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

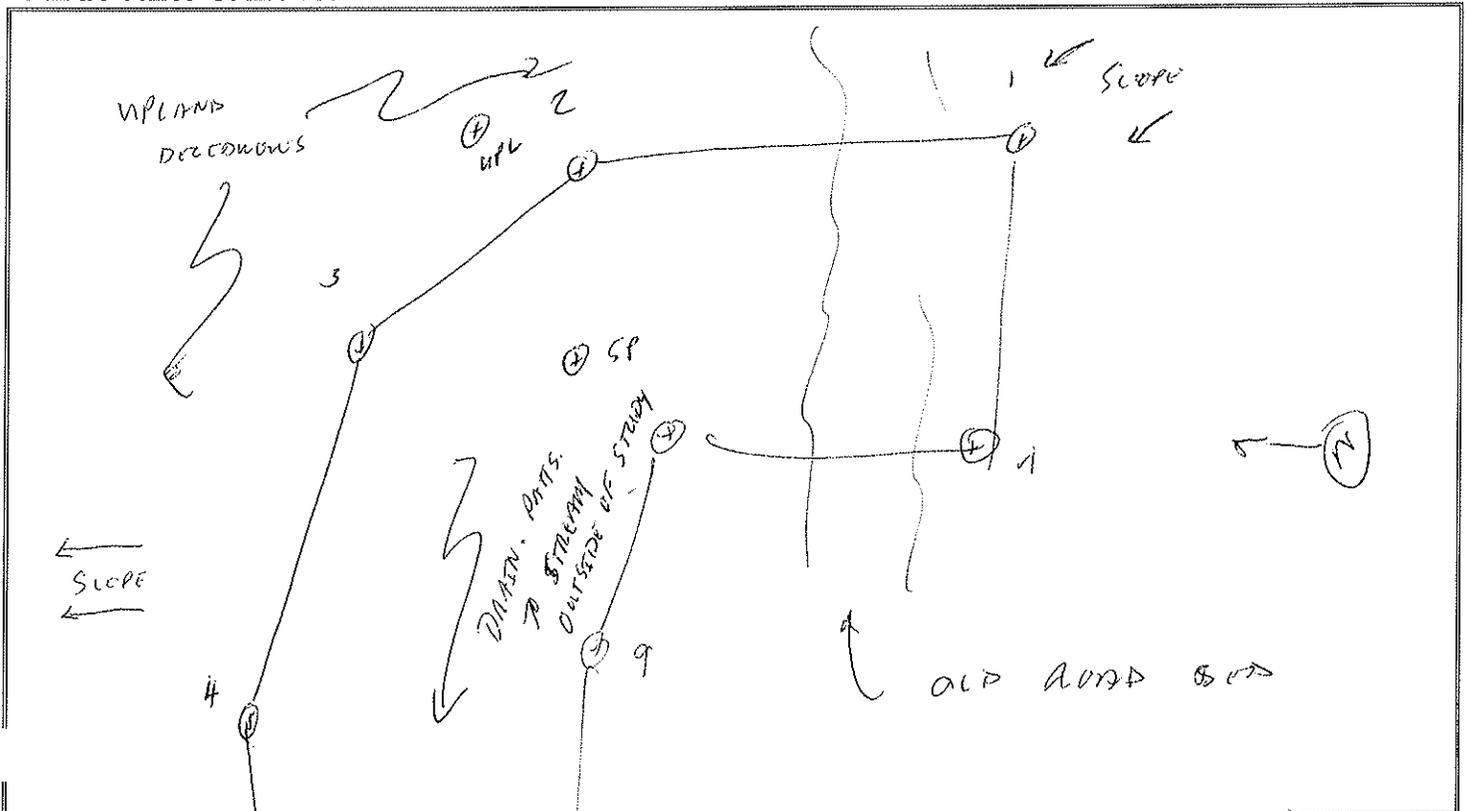
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" 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 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: ③ (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: Assoc. w/ OFF-SITE STREAM - JURISDICTIONAL

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SAC-23

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	WHITE OAK (QUERCUS ALBA)	80 - T	Y	FACU
2	STRIPED MAPLE (ACER PENNSYLVANICUM)	20 - T	Y	FACU
3	CINNAMON FERN (OSMUNDA CINNAMOMEA)	80 - H	Y	FACU
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: WETLAND VEGETATION IS PRESENT AND DOMINANT (HERB.) @ 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	1	- 1 - 1 - 1 -	-	-
2 - 5	2.5Y 5/2 10D	- 1 - 1 - 1 -	-	SRT CLAY
5 - 12+	2.5Y 6/2 10D	10YR 6/8 10 1RM 1M	Few BRISBT	SRT 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: WETLAND SOIL CHARACTERISTICS NOTED @ 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: N/A, NO NOTED WETLAND HYDROLOGY.			



W-SRC-23 overview, facing east.



W-SRC-23 overview, facing south-southwest.



W-SRC-23 wetland soil test pit.



W-SRC-23 upland soil test pit.

WETLAND W-SRC-24

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-24	
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)? RETIRED 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 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 checked="" type="checkbox"/> Other - RETIRED LOGGING ROAD		
Slope: 25 %		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 - SSW 3 - WETLAND PET 2 - NNE 4 - UPLAND PET	
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.SRC.24*

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 - 6</i>	<i>2.5Y 4/1 / 60</i>	<i>7.5YR 4/4 / 40 / RM / PL</i>	<i>MANY, BRIGHT</i>	<i>SILT LOAM</i>
<i>6 - 11</i>	<i>5Y 6/1 / 55</i>	<i>5YR 4/6 / 45 / RM / PL</i>	<i>MANY, BRIGHT</i>	<i>CLAY LOAM</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 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.24*

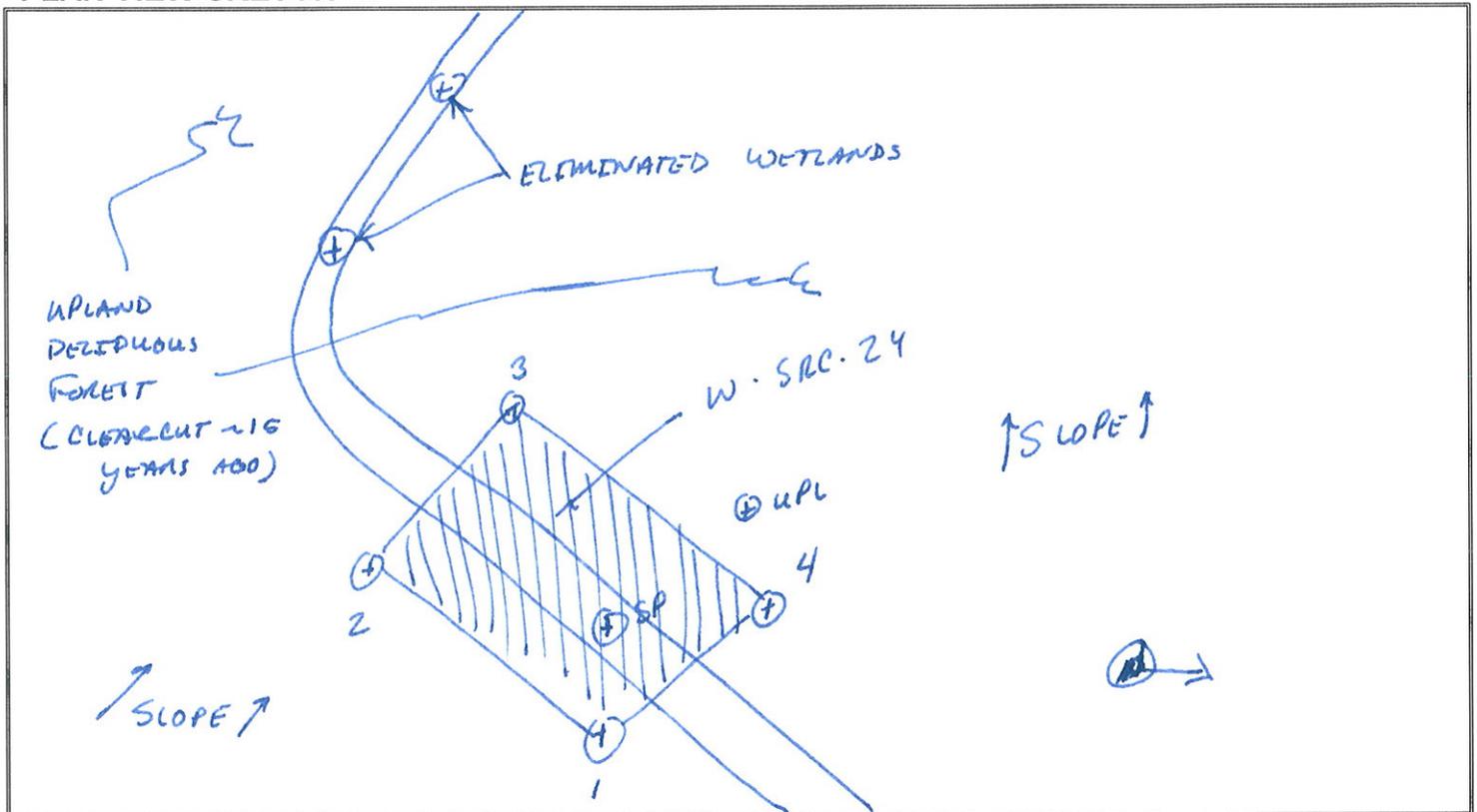
HYDROLOGY

WETLAND HYDROLOGY INDICATORS	
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input 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 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: <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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: <i>-</i> (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks:

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SRC-24

VEGETATION

#	All Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator
1	RED MAPLE (<i>ACER RUBRUM</i>)	50		FAC
2	RED OAK (<i>QUERCUS AUSTRALIS</i>)	20		FACU
3	SWEET BIRCH (<i>BETULA LENTANA</i>)	20		FACU
4	BLACK CHERRY (<i>PRUNUS SEROTINA</i>)	10		FACU
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. (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 - 1	- / -	- / - / - / -	-	-
1 - 10	7.5YR 4/1 / 70	7.5YR 4/6 / 30 / RM / PL	COMMON, FAINT	LOAM
10 - 15	2.5Y 6/3 / 60	7.5YR 4/6 / 40 / RM / PL	MAJ, FAINT	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 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"/> Other
<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"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Aerial Photographs	<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 NOTED @ SAMPLE PT.			



W-SRC-24 overview, facing north-northeast.



W-SRC-24 overview, facing south-southwest.



W-SRC-24 wetland soil test pit.



W-SRC-24 upland soil test pit.

WETLAND W-SRC-25

**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): A7M/PSS (50/50)		Wetland ID #: W-SRC-25	
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)?		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 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 checked="" type="checkbox"/> Other - RETIRED LOGGING ROAD		
Slope: 5-10 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: ⑦		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - SW 3 - WETLAND PET 2 - WNW 4 - UPLAND PET	
Remarks: ASSOC. W/ STREAM S-SRC-23 - JURISDICTIONAL.			

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: PSS PORTION IS W/IN STREAM CHANNEL.								

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 - 25

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	10YR 4/2 / 40	10YR 4/6 / 10 / RM / PL	LOW, FAINT	SILT LOAM
4 - 7	2.5Y 4/2 / 80	7.5YR 4/6 / 20 / RM / PL	LOW, FAINT	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 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? Yes No

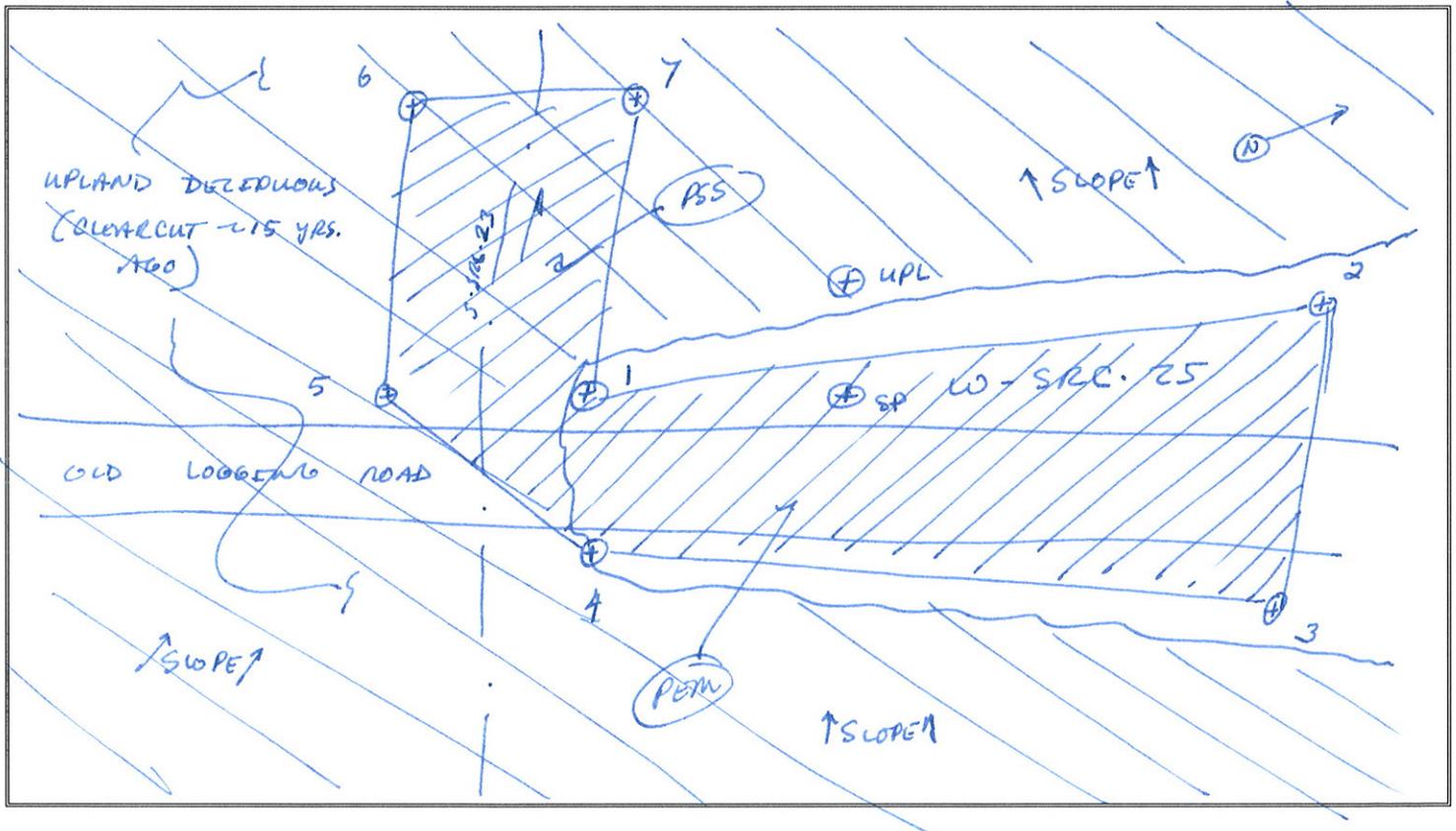
Remarks: REFUSAL @ 7" DUE TO ROCK, RETIRED LOGGING ROAD.

WETLAND ID #: *W.SRC.25*

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"/> 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 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 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 checked="" 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 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: <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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: <i>—</i> (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: <i>ASSOC. W/ STREAM S.SRC.23. CONDITIONS @ SURVEY - NEAR DROUGHT.</i>			

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point
 W. SRC. 25

VEGETATION

#	All Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator
1	RED MAPLE (<i>ACER RUBRUM</i>)	60	Y	FAC
2	RED OAK (<i>QUERCUS RUBRA</i>)	30	Y	FACU
3	BLACK LOCUST (<i>ROBINIA PSEUDACALYA</i>)	10	N	FACU
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. (50/100)				

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 - 10	10YR 5/2 100	- / - / - / -	-	LOAM
10 - 16	2.5Y 6/3 80	10YR 3/4 40 RM PL	MANY, DISTINCT	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 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"/> Other	
<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)		
		<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 OBSERVED @ 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	PTL ALLEGHENY TUNNEL	07.09.12	N/A	W-SAC-25		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
SRC, ILLE				JULIEDITORIAL		

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 %	CI
	Score >	9	7								8.5	0.00

0.43

Comments:

CONNECTED TO STREAM S.SAC.25.



W-SRC-25 overview, facing southwest.



W-SRC-25 overview, facing west-northwest.



W-SRC-25 wetland soil test pit.



W-SRC-25 upland soil test pit.

WETLAND W-SRC-26

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-26	
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)? 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 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 checked="" type="checkbox"/> Other - OLD LOGGING ROAD		
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 - SE 3 - WETLAND PIT	
		2 - NW 4 - UPLAND PIT	
Remarks: APPARENTLY ISOLATED - NO NOTED INFLOW OR OUTFLOW.			

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: CONDITIONS @ TIME OF SURVEY - NEAR DROUGHT.					

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 · 26*

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 - 5</i>	<i>10YR 4/2 / 90</i>	<i>7.5YR 3/4 / 10 / RM / M</i>	<i>FEW, DULL</i>	<i>SANDY LOAM</i>
<i>5 - 12</i>	<i>10YR 4/1 / 85</i>	<i>7.5YR 3/4 / 15 / RM / PL</i>	<i>FEW, DULL</i>	<i>SANDY LOAM</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 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.26

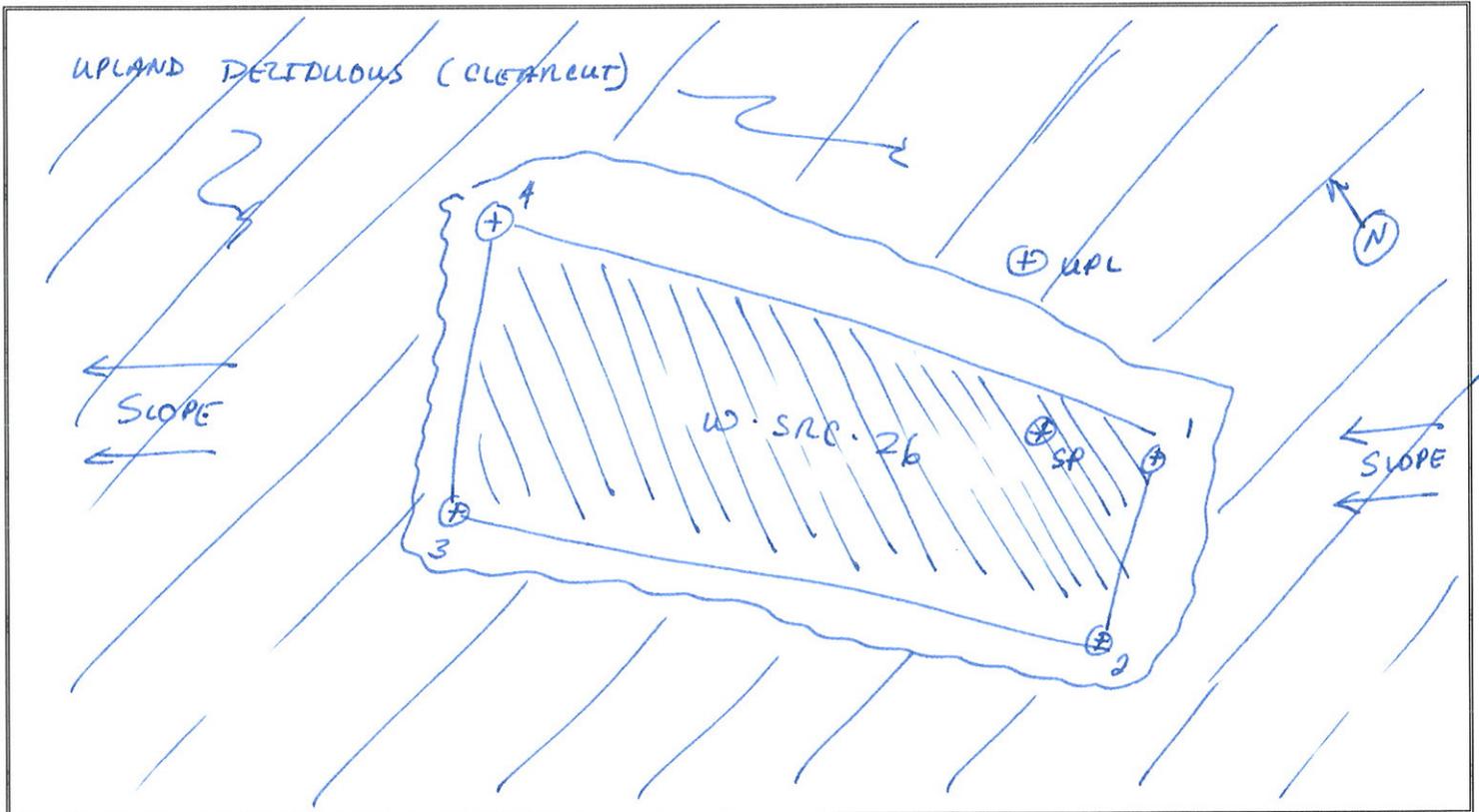
HYDROLOGY

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 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 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: 8 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: NO APPARENT INLET/OUTLET. ISOLATED.

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W. SRC. 26

VEGETATION

#	All Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator
1	SWEET BIRCH (<i>BETULA LONTA</i>)	80	y	FALL
2	RED MAPLE (<i>ACER RUBRUM</i>)	20	y	FAC
3				
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. (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 - 1.5	- / -	- / - / - / -	-	-
1.5 - 4	7.5YR 4/0 / 100	- / - / - / -	-	LOAM
4 - 15	2.5Y 6/3 / 70	10YR 5/6 / 30 / RM / PL	COMMON, DISTINCT	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 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 NOTED HYDROLOGY @ SAMPLE PT.			



W-SRC-26 overview, facing northwest.



W-SRC-26 overview, facing southeast.



W-SRC-26 wetland soil test pit.



W-SRC-26 upland soil test pit.

WETLAND W-SRC-27