

UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W.JHS-04 (UPLAND SAMPLE BETWEEN W.JHS-04 AND W.JHS-05)

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	GREENBREM (SIBBALK SP.)	15	N	-
2	RHODODENDRON (R. PRINOPHYLLUM)	5	N	FAC
3	GRASS (DICHTANTHELIUM SP.)	40	Y	-
4	LOWBUSH BLUEBERRY (VACCINIUM ANGUSTIFOLIUM)	40	Y	FACU
5				
6				
		100	= Total Cover	
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND VEG. IS PRESENT BUT 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
0 - 2	- / -	- / - / - / -	-	-
2 - 6	10YR 4/2 / 100	- / - / - / -	-	SANDY CLAY
6 - 10	10YR 4/4 / 100	- / - / - / -	-	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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND SOIL CHARACTERISTICS NOT 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"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: NO WETLAND HYDROLOGY NOTED @ SAMPLE PT.			

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

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

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)	
A117	PTC ALLEGHENY TUNNEL	05.17.12	N/A	W JHS-04		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
JH, DLM, LAU				ASSOC. W/ STREAM S. JHS-08		

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 >	4	11							6.8	0.34

Comments:
 WETLAND CONTAINED W/IN AN ELECTRICAL POWERLINE ROW. RESULT OF IMPROPER STREAM RESTORATION.



W-JHS-04 overview, facing north



W-JHS-04 overview, facing south.



W-JHS-04 overview, facing east.



W-JHS-04 wetland soil test pit.



W-JHS-04 upland soil test pit.

WETLAND W-JHS-05

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

Project/Site: Allegheny Tunnel		Date: 05.17.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): DLM, LAM		State: PA	
Cowardin Classification (Percentage): PEM (100)		Wetland ID #: W-JHS-05	
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)? POWERLINE INSTALL & MAINT.			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: - (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: 5 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 6		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1- SSE 3- WETLAND PIT 2- NNW 4- UPLAND PIT	
Remarks: ASSOC W/ PREV. DISTURB. & MAINT. ON POWERLINE ROW.			

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/ STREAM S-JHS-09. 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.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #:

W. JHS . 05

VEGETATION

#	Tree Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet	
1	SUGAR MAPLE (ALTR SACCHARUM)	NOTED	-	FACU	# of Dominant Species that are OBL, FACW, or FAC?	2 (A)
2	SWEET BIRCH (BETULA LENTA)	NOTED	-	FACU	Total # of Dominant Species across all Strata?	5 (B)
3					% of Dominant Species that are OBL, FACW, or FAC?	40 (A/B)
4					Prevalence Index Worksheet	
5	PROVIDE CANOPY FROM OUTSIDE -				Total % Cover of:	Mult. by:
6	NOT W/IN BOUNDARY				OBL species	1 =
				= Total Cover	FACW species	2 =
#	Sapling Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	FAC species	3 =
1	SWEET BIRCH (BETULA LENTA)	NOTED	-	FACU	FACU species	4 =
2					UPL species	5 =
3					Coln. Totals:	(A) (B)
4					Prevalence Index =	B/A =
5					Hydrophytic Vegetation Indicators	
				= Total Cover	Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
#	Shrub Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1	MIN. LAUREL (LALMIA LATEFOLIA)	NOTED	-	FACU	Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input type="checkbox"/> No
2					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4					Vegetation Strata Definitions	
5					Tree – Woody plant 20+ feet high & 3+ in. dbh	
				= Total Cover	Sapling – Woody plant 20+ feet high & <3 in. dbh	
#	Herb Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Shrub – Woody plant ~3-20 feet high	
1	HELLEBORE (VERATRUM VERIDE)	20	Y	FACW	Woody Vine – All woody vines	
2	SKUNK CABBAGE (SYMPLOCARPUS FOETIDA)	20	Y	OBL	Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	NY FERN (PARATHELYPTERIS NOYB.)	15	N	FAC	Remarks:	
4	CINN. FERN (OSMUNDA CENNAMOMIS)	15	N	FACW	VEGETATION IS ROUTINELY MAINTAINED. POWERLINE ROW. NOTED SAGUNAM.	
5	LYCOPODIUM SP.	20	Y	-		
6	STAR FUNGUS	NOTED	N	-		
7	GRASS (DICENTELUM SP.)	10	N	-		
8						
9						
10						
		100		= Total Cover		
#	Woody Vine Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
				= Total Cover		

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: *W-JHS-05*

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>2.5YR 2.5/1 / 100</i>	<i>- / - / - / -</i>	<i>-</i>	<i>SLT</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 checked="" type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)			
<input type="checkbox"/> 2 cm of Muck (A10)	<input type="checkbox"/> Redox Dark Surface (F6)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)			
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13)			
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other			
<input type="checkbox"/> Dark Surface (S7)				
INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)				
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Piedmont Floodplain Soils (F19)	<input type="checkbox"/> Other			
<input type="checkbox"/> Red Parent Material (TF2)				
Hydric Soil Present?		<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No
Remarks: <i>WETLAND SOILS APPEAR TO BE ALLUVIUM FROM STREAM S-JHS-05</i>				

WETLAND ID #: W. JHS. 05

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

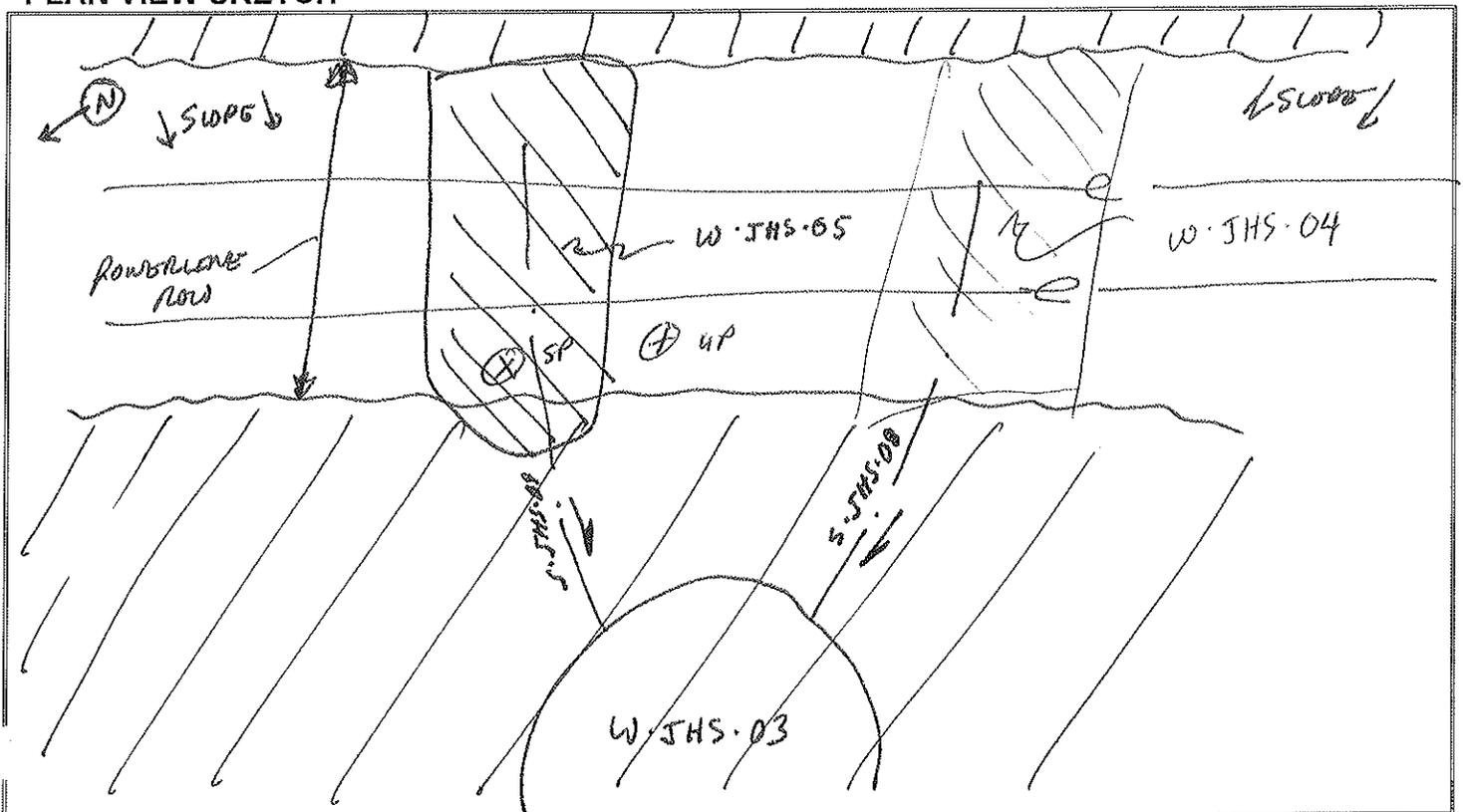
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns
<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard
<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: 3 (in)
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: ASSOC. W/ STREAM S. JHS. 09.

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-JHS-05 (UPLAND SAMPLE BETWEEN W-JHS-04 AND W-JHS-05)

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	GREENBRIAR (SMELAX SP.)	15	N	-
2	RHODODENDRON (R. PLEROPHYLLUM)	5	N	FAC
3	GRASS (DICHLANTHELTUM SP.)	40	Y	-
4	LOWBUSH BURBERRY (VACCINIUM ANONISIFOLIUM)	40	Y	FACU
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND VEG. IS PRESENT BUT NOT DOMINANT @ SAMPLE PT.				

SOILS

Soil Survey Map Unit Name/Symbol:				Drainage Class:
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 6	10YR 4/2 / 100	- / - / - / -	-	SANDY CLAY
6 - 10	10YR 4/4 / 100	- / - / - / -	-	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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND SOIL CHARACTERISTICS NOT 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"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND HYDROLOGY NOT NOTED @ SAMPLE PT.			

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

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

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)	
A115	PTE ALLEGHENY TUNNEL	05.17.12	N/A	W.JHS.05		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
DLM, LAU				ASSOC. W/ STREAM S.JHS.09.		

1. Wetland Zone of Influence Condition Index

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

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

Scoring:	% ZOI Area >	0.70	0.30						100 %	CI
	Score >	4	11						61	0.31

0.31

Comments:
 WETLAND IS ASSOC. W/ ELECTRICAL POWERLINE ROW. WETLAND APPEARS TO BE RESULT OF IMPROPER STREAM RESTORATION.



W-JHS-05 overview, facing north-northeast.



W-JHS-05 overview, facing south-southeast.



W-JHS-05 overview, facing west.



W-JHS-05 wetland soil test pit.



W-JHS-05 upland soil test pit.

WETLAND W-JHS-06

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

Project/Site: Allegheny Tunnel		Date: 05.17.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): JH, LAU		State: PA
Cowardin Classification (Percentage): PEM (100)		Wetland ID #: W.JHS.06
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)? POWERLINE ROW		
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?		
NWI Classification: — (if applicable)		
Landform/Geomorphic Setting (Check All That Apply)		
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace	
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel	
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain	
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan	
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta	
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other —	
Slope: < 5 %	Land Relief: <input type="checkbox"/> Concave <input type="checkbox"/> Convex <input checked="" type="checkbox"/> None	
Latitude: Longitude:	Datum:	
No. of Flags: 6	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A	1 - N 3 - WETLAND PCT 2 - S 4 - UPLAND PCT	
Remarks: WETLAND DEVELOPMENT DUE TO IMPROPER STREAM RESTORATION.		

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: ASSOCIATED W/ STREAM S.S.R.C. 20 - 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.

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W. JHS - 06

VEGETATION

#	Tree Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet		
1					# of Dominant Species that are OBL, FACW, or FAC?	3	(A)
2					Total # of Dominant Species across all Strata?	4	(B)
3					% of Dominant Species that are OBL, FACW, or FAC?	75	(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 (Genus species)	Absolute % Cover	Dominant Species	Indicator			
1	REED CANARY (PHALARIS ARUND.)	20	Y	FACW			
2	SILK CABBAGE (SYMPLOCARPUS FOETIDUS)	NOTED	N	OBL			
3	SPERMATOPHYTES (LYCOPODIUM CLAVATUM)	30	Y	FAC			
4	GOLDFIELD (SOLIDAGO SP.)	20	Y	-			
5	NY FERN (PARATHELYPTERIS ADAM.)	NOTED	N	FAC			
6	DEWWEED FERN (OSUNDA CERINIFOLIA)	NOTED	N	FACW			
7	SEDGE (CAREX CRINITA)	30	Y	OBL			
8	GRASS (DECHATHOLENUM SP.)	NOTED	N	-			
9	BLACKBERRY (RUBUS SP.)	NOTED	N	-			
10		100			= Total Cover		
#	Woody Vine Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator			
1							
2					= Total Cover		

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W.JHS.06

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 - 3	10YR 8/2 / 100	- / - / - / -	-	SILT LOAM
3 - 12	10YR 4/2 / 90	2.5YR 4/6 / 10 / RM / PL	Few, Dull	SILT LOAM
-	/	/ / / /		
-	/	/ / / /		
-	/	/ / / /		

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

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input 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-JHS-06*

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

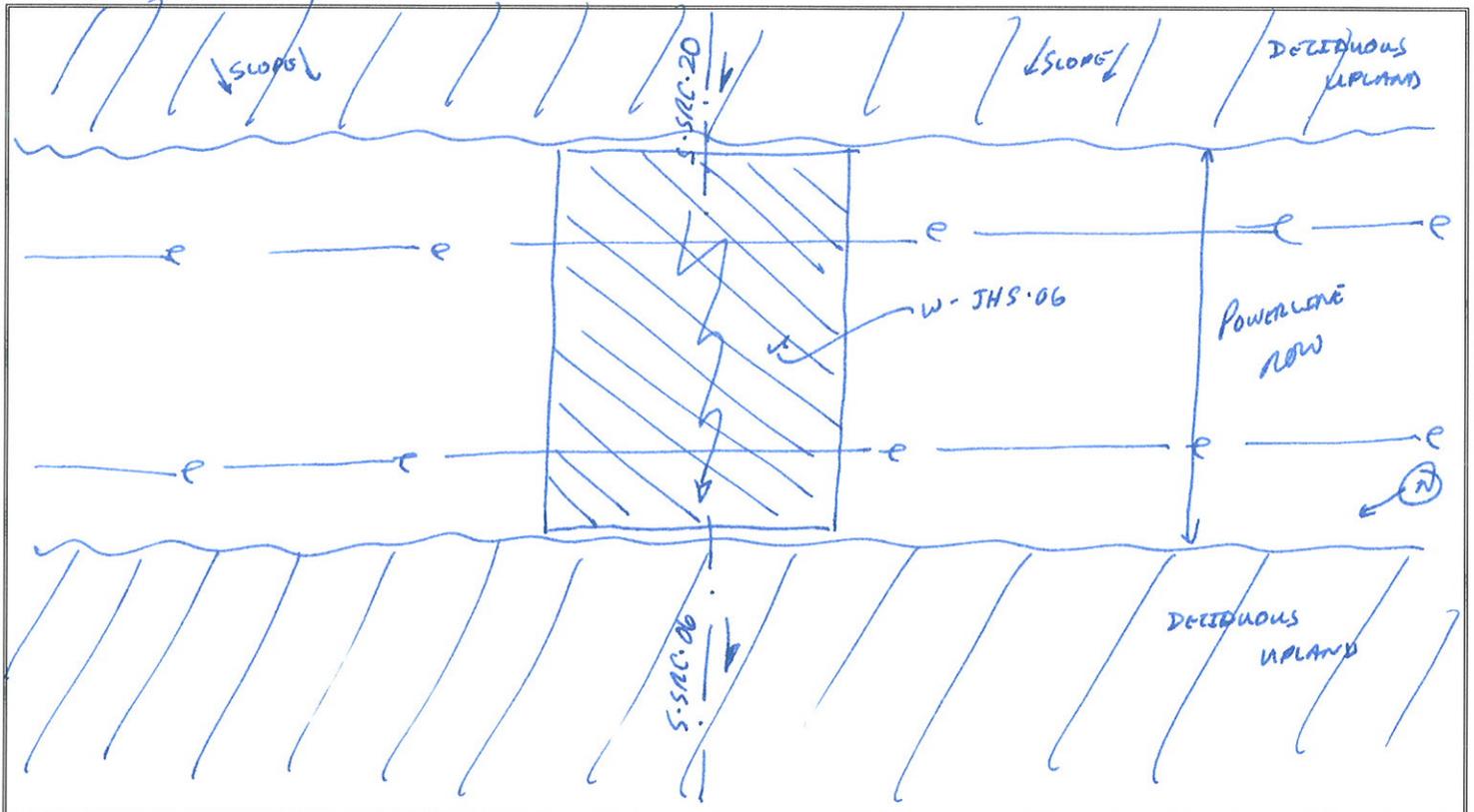
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input 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: <i>2</i> (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: <i>-</i> (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: <i>6</i> (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: *ASSOC. W/ STREAMS S.SRC.20 AND S.SRC.06*

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W.J.H.S. 06

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	WINDSTEM (VERBENA ALTERNIFOLIA)	25	Y	FAC
2	GOLDEN ROD (SOLEDAPO S.P.)	20	Y	-
3	LOWBUSH BURNING (VALLISNERIA ANGSTIFOLIUM)	20	Y	FACU
4	STRAWBERRY (EUONYMUS S.P.)	25	Y	-
5	SWAMP DEWBERRY (AMBROSIA TRISTIS)	10	N	FACU
6	MAY APPLE (PODOPHYLLUM PETAOTUM)	NOTED	N	FACU

= Total Cover

Wetland Vegetation Present? Yes No

Remarks: WETLAND VEG. IS PRESENT AND DOMINANT @ SAMPLE PT. (50/20).

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 - 1	- / -	- / - / - / -	-	-
1 - 4	10YR 4/2 / 100	- / - / - / -	-	SELF LOAM
4 - 6	7.5Y 5/2 / 90	7.5YR 3/6 / 10 / RM / PL	FEW, DISTINCT	SELF 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? Yes No

Remarks: WETLAND SOILS ARE 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.



W-JHS-06 overview, facing east.



W-JHS-06 overview, facing south-west.



W-JHS-06 overview, facing west.



W-JHS-06 overview, facing north.



W-JHS-06 wetland soil test pit.



W-JHS-06 upland soil test pit.

WETLAND W-JHS-08

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

Project/Site: Allegheny Tunnel		Date: 5/23/2011
Applicant/Owner: PTC		County: Somerset
Investigator(s): SJC, DLM, LAH		State: PA
Cowardin Classification (Percentage): <i>DEM (100)</i>		Wetland ID #: <i>W-316-B</i>
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)?		
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: <i>50</i> %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude:	Longitude:	
Datum:		
No. of Flags: <i>6</i>	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. <i>N/A</i>	1 - <i>WWW</i>	3 -
	2 - <i>ESE</i>	4 -
Remarks: <i>ASSOC. W/ S JHS-21 AND S JHS-22 - JURISDICTIONAL</i>		

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: <i>DISTURBED - FILL CONSTRUCTION FOR 376 EB.</i>			

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-JHS-09

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?	4 (B)
3					% of Dominant Species that are OBL, FACW, or FAC?	75 (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:	
#	Sapling Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
3						
4						
5						
					= Total Cover	
#	Shrub Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
3						
4						
5						
					= Total Cover	
#	Herb Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1	C. MEX. SP.	30	Y	-		
2	COYS FOOT (<i>PETASITES PUMILIS</i>)	20	Y	FACW		
3	MINT (<i>MENTHA ALBA</i>)	20	Y	FACW		
4	BONNYON (<i>EUPATORIUM PERFORATUM</i>)	10	N	FACW		
5	JEWEL WOOD (<i>SPHONTOSTYLIS CRUCIATA</i>)	10	N	FACW		
6						
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 JHS 08
SOILS

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

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 5	10YR 3/2 20	7.5YR 3/3 80 RM M	many, prominent	SILO 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: REFUSAL @ 5" DUE TO MUCK - PTC FILL SCORE

WETLAND ID #: W. JHS 09

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

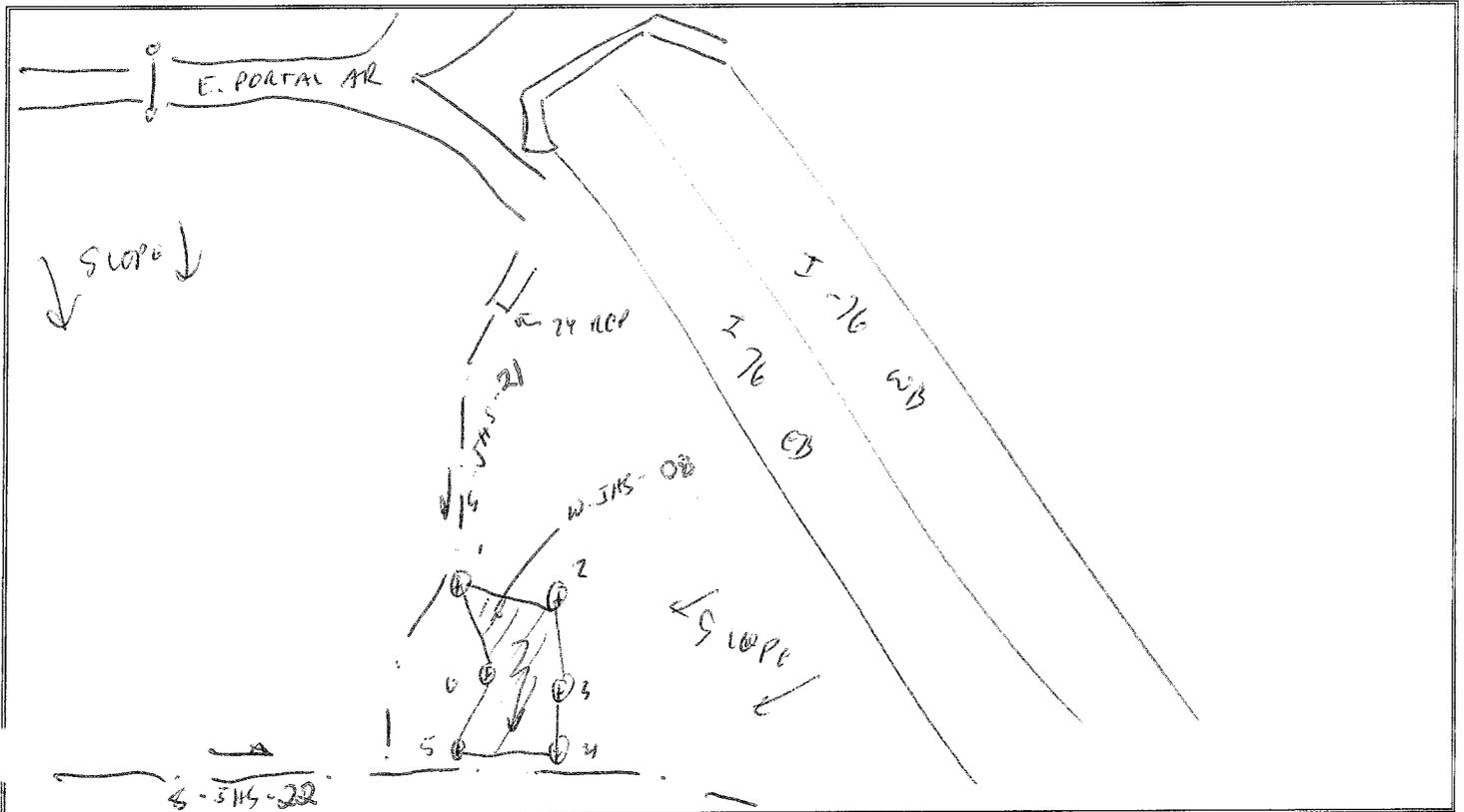
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input 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 checked="" type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Other ASSOC. w/ CRUSTALS
<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: 3 (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: ASSOC. w/ S. JHS-17 AND S. JHS-18

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

10 5HS 08

VEGETATION

#	All Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator
1	SOLIDAGO SP.	60	Y	—
2	BIACU CILICORNY (PENNAES SERRIFOLIA)	20	Y	FACU
3	TAISTO (CISTACIUM VULGARE)	20	Y	NI
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
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		
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: ROCK FILL, NO SAMPLE COLLECTED, NO WETLAND SOILS 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"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: — (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: — (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: NO WETLAND HYDROLOGY NOTED @ SAMPLE POINT			



W-JHS-08 overview, facing east-northeast.



W-JHS-08 overview, facing east-southeast.



W-JHS-08 wetland soil test pit.

WETLAND W-JHS-09

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

Project/Site: Allegheny Tunnel		Date: 05-23-2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SRC, DIM LAM		State: PA
Cowardin Classification (Percentage): 10M (100)		Wetland ID #: W-JHS-09
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)?		
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 - ENE 3 -	2 - WSW 4 -
Remarks: MAN MADE DRAIN SWALE		

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: CONNECTED TO S-JHS-26			

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-JHS-09
SOILS

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

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- 1 -	- 1 - 1 - 1 -	-	-
2 - 5	7.5YR 3/2 100	- 1 - 1 - 1 -	-	SILT LOAM
5 - 10	2.5Y 4/1 100	- 1 - 1 - 1 -	-	SILT LOAM
-	1	1 1 1		
-	1	1 1 1		
-	1	1 1 1		

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

HYDRIC SOIL INDICATORS (Check All That Apply)

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

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

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

Hydric Soil Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks: REFUSAL @ 10" DUE TO ROCK. PREVIOUSLY DIST. VIA ROAD. CONSULT.		

WETLAND ID #: W-JHS-09

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

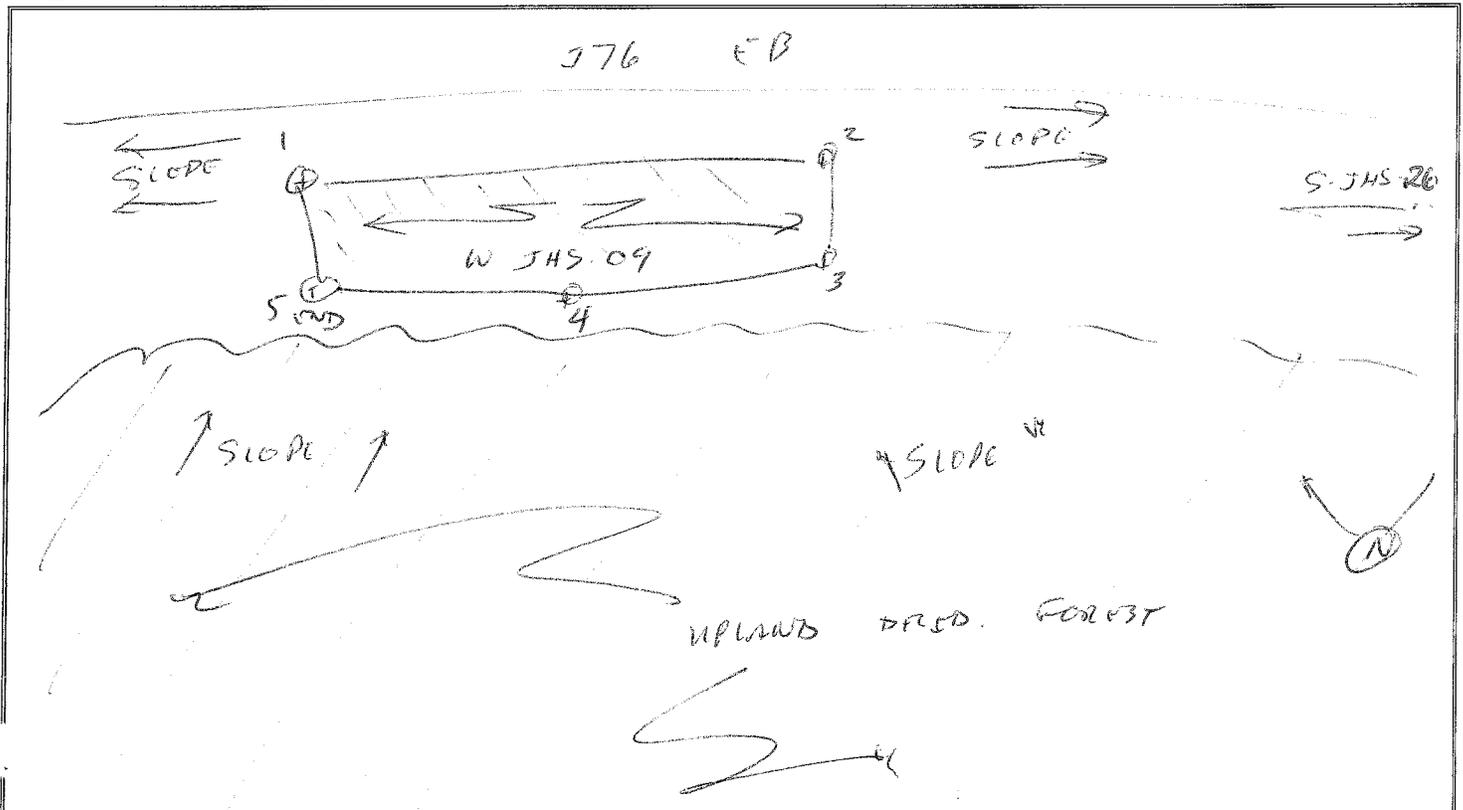
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input 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: 3 (in)
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: UNCONNECTED TO S-JHS 26

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point
 W-545-09

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	RED MAPLE (ALER RUBRUM)	60	Y	FAC
2	BIRCH (BETULA LENTIA)	20	Y	FACU
3	HAY-SCENTED SCRUB (DENNSTAEDTIA PUNCTILOBULA)	20	Y	FACU
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: WETLAND 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
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		
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: SOIL SAMPLE NOT TAKEN - REFUSAL DUE TO ROCK/FILL.				

HYDROLOGY

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

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

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

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)	
A115	PTC ALLEGHENY TUNNEL	05.23.12	N/A	W.JHS.09		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
SRL, DLM, LAH				ASSOC. W/ STEPHAN S.JHS.26		

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 >	0.50	0.25	0.25					100 %	CI
	Score >	12	4	2					7.5	0.38

0.38

Comments:
 ADJ TO I-76 EB. LOCATED IN ROADSIDE SWALE



W-JHS-09 overview, facing east-northeast.



W-JHS-09 overview, facing west-southwest.



W-JHS-09 wetland soil test pit.



W-JHS-09 upland soil test pit.

WETLAND W-JHS-10

**WETLAND DETERMINATION DATA FORM
ROUTINE WETLAND DETERMINATION**

(1987 USCOE Wetlands Delineation Manual and Associated Regional Supplement)

Project/Site: Allegheny Tunnel		Date: 05.23.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRL, DLM, LAH		State: PA	
Cowardin Classification (Percentage): PEM (100)		Wetland ID #: W.JHS.10	
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 type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input checked="" 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 - NW 3 -	
		2 - SE 4 -	
Remarks: ASSOCIATED W/ OW FROM MAN-MADE DOND.			

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: OUTLET TO S.JHS.26.			

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 · JH3 · 10

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?	4 (A)
2					Total # of Dominant Species across all Strata?	4 (B)
3					% of Dominant Species that are OBL, FACW, or FAC?	100 (A/B)
4					= Total Cover	
5					= Total Cover	
					Prevalence Index Worksheet	
					Total % Cover of:	Mult. by:
					OBL species	1 =
					FACW species	2 =
					FAC species	3 =
					FAGU 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	SOFT RUSH (<i>JUNCUS EFFUSUS</i>)	20	Y	FACW		
2	CAREX STRICTA	20	Y	OBL		
3	CAREX LANCEOLA	20	Y	OBL		
4	SPERMATOPHYTES (<i>SCANDENOPLETIS TRICHOM</i>)	20	Y	OBL		
5	PITH RNA (<i>ELUDCHARIS SP.</i>)	10	N	-		
6	BROOM SEDGE (<i>ANDROPODON VERGENSIS</i>)	10	N	FALL		
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-JHS-10*

SOILS

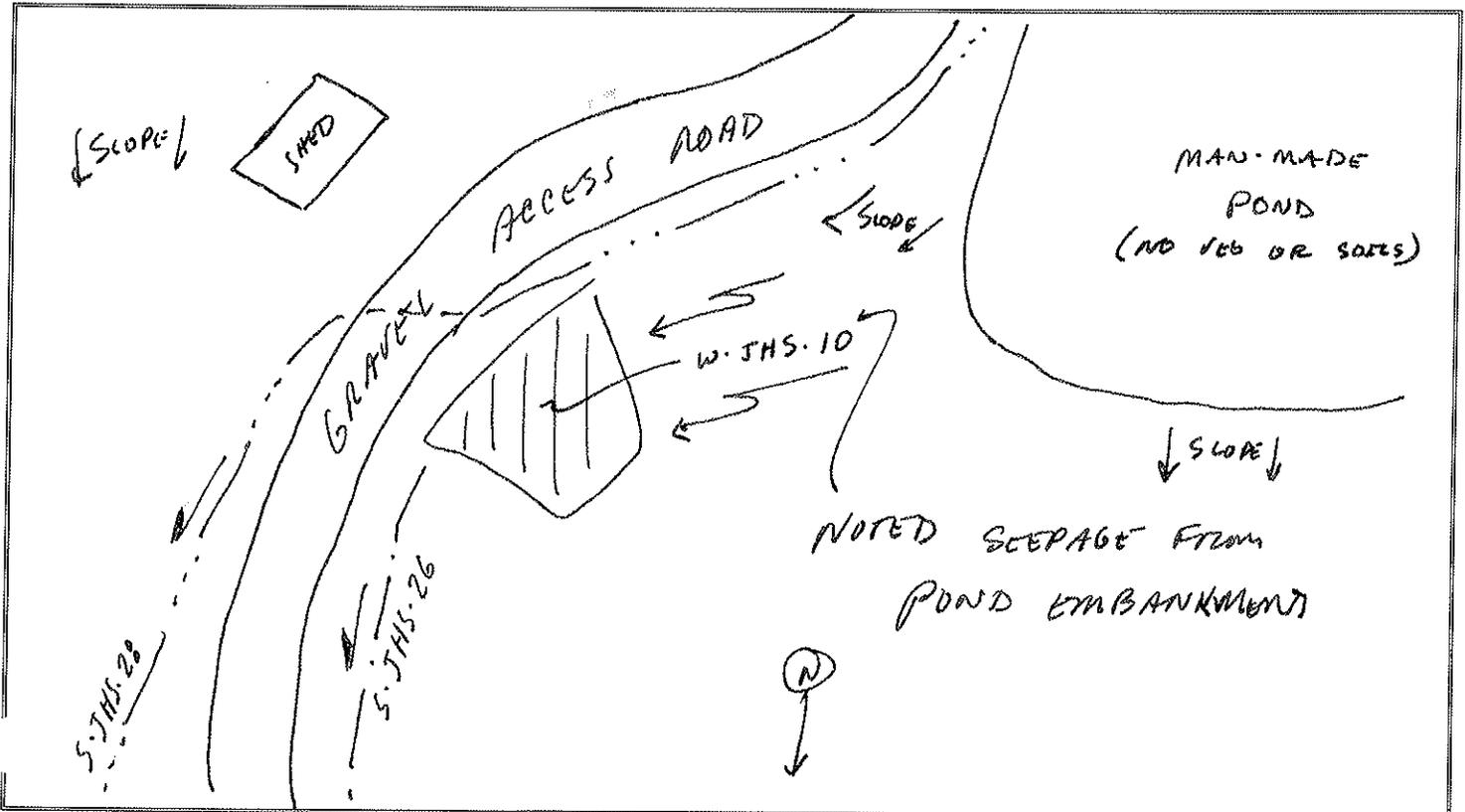
Soil Survey Map Unit Name/Symbol: -		Drainage Class: -		
Taxonomy: -		Field Observations Confirm Mapped Type: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
<i>0 - 10</i>	<i>7.5YR 6/11 SD</i>	<i>7.5YR 6/6 SD RM M</i>	<i>MANY, DISTINCT</i>	<i>CLAY LOAM w/ ROCK</i>
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains Location: PL = Pore Lining and M = Matrix				
HYDRIC SOIL INDICATORS (Check All That Apply)				
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Polyvalue Below Surface (S8)		
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Thin Dark Surface (S9)		
<input type="checkbox"/> Sulfidic Odor (A4)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)		<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> 2 cm of Muck (A10)		<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)		<input type="checkbox"/> Iron-Manganese Masses (F12)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Umbric Surface (F13)		
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Piedmont Floodplain Soils (F19)		
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Other		
<input type="checkbox"/> Dark Surface (S7)				
INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)				
<input type="checkbox"/> 2 cm Muck (A10)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Piedmont Floodplain Soils (F19)		<input type="checkbox"/> Other		
<input type="checkbox"/> Red Parent Material (TF2)				
Hydric Soil Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: <i>HEAVILY DISTURBED SOIL - MAN-MADE POND EMBANKMENT CONSTRUCTION.</i>				

WETLAND ID #: W.JHS.10

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 checked="" 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 checked="" type="checkbox"/> Other BACTERIAL FILM	<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 checked="" type="checkbox"/> Yes	<input 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 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/ STREAM S.JHS.26 - JURISDICTIONAL			

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point
 W-JHS-10

VEGETATION

#	All Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator
1	FESCUE SP.	80	Y	-
2	CAREX CRINITA	20	Y	OBL
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
-				
-				
-				
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: SOIL SAMPLE NOT OBTAINED - HEAVILY DISTURBED VIA POND CONST.				

HYDROLOGY

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



W-JHS-10 overview, facing east-northeast.



W-JHS-10 overview, facing west-southwest.



W-JHS-10 wetland soil test pit.



W-JHS-10 upland soil test pit.

WETLAND W-JHS-11

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

Project/Site: Allegheny Tunnel		Date: 05.24.2017	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, DLM		State: PA	
Cowardin Classification (Percentage): P1W (100%)		Wetland ID #: W-JHS-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)?			
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- SW	3-
		2- NE	4-
Remarks: ASSOC. W/ ROADSIDE SWALE → W JHS-02			

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-5HS-11

SOILS

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

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- 1 -	- 1 - 1 - 1 -	-	-
2 - 5	2.5Y 3/2 1 80	04R 3/6 1 20 1RM 1 M	FEW, DISCRETE	SILT CLAY
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		

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

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL 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 @ 5" DUE TO ROCK - SOIL DISTURBED

WETLAND ID #: W-515-11

HYDROLOGY

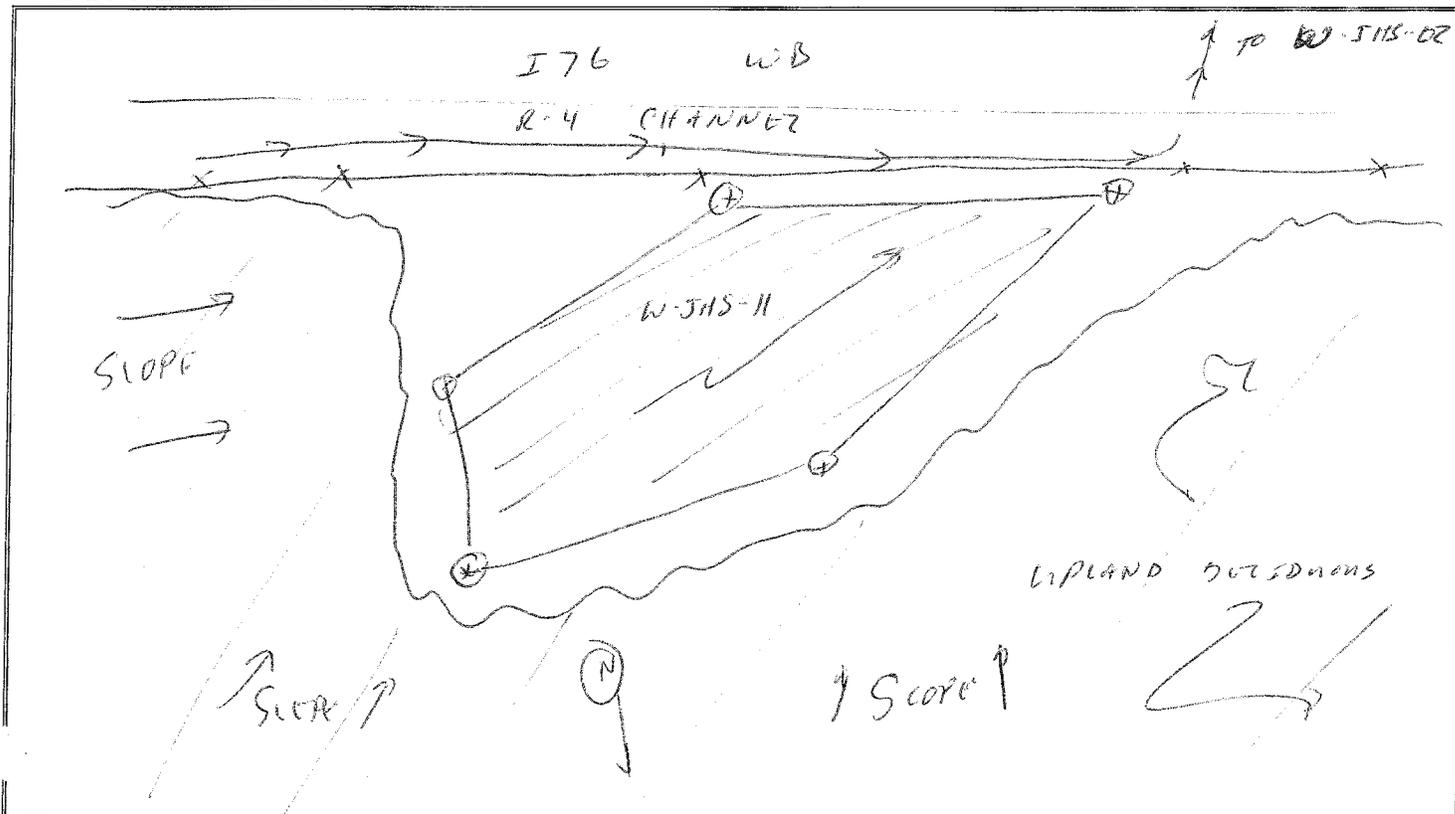
WETLAND HYDROLOGY INDICATORS	
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated 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 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 checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> No Recorded Data Available

FIELD OBSERVATIONS

Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 1 (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 2 (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 5115 11

VEGETATION

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

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 3	- 1 -	- 1 - 1 - 1 -	-	-
3 - 8	5YR 2-5/2 100	- 1 - 1 - 1 -	-	SILT LOAM
8 - 12	7.5YR 4/1 100	- 1 - 1 - 1 -	-	SILT LOAM
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND SOIL CHARACTERISTICS ARE NOT OBS. @ SAMPLE PT.				

HYDROLOGY

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

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

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

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)	
A117	PTC ALLEGHENY TUNNEL	05.24.12	N/A	W-JHS-11		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
SAC, DLM				ASSOC. W/ ROADSIDE SWALE → W-JHS-02		

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 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	0.20	0.20						100 %	CI
	Score >	5	3	2						4.0	0.20

0.20

Comments:
ADJ. TO I-76 WEST BOUND.



W-JHS-11 overview, facing east-northeast.



W-JHS-11 overview, facing southeast.



W-JHS-11 wetland soil test pit.



W-JHS-11 upland soil test pit.

WETLAND W-JHS-12

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

Project/Site: Allegheny Tunnel		Date: 05.24.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SAC, DLM		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W-JHS-12	
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 type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input type="checkbox"/> Within Stream Channel		
<input checked="" type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input checked="" type="checkbox"/> Other - ATN - TIME RUTTED AREA		
Slope: 10 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 1		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. n/a		1 - 3 -	2 - 4 -
Remarks: ASSOC. W/ S-JHS-30 - JURISDICTIONAL			

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: CANOPY ~ 100% PROVIDED BY MED OAK & RED MAPLE					

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-JHS-12

VEGETATION

#	Tree Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet		
1					# of Dominant Species that are OBL, FACW, or FAC?	2 (A)	
2					Total # of Dominant Species across all Strata?	2 (B)	
3					% of Dominant Species that are OBL, FACW, or FAC?	100 (A/B)	
4					Prevalence Index Worksheet		
5					Total % Cover of:	Mult. by:	
6					OBL species	1 =	
	= Total Cover		FACW species	2 =			
#	Sapling Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	FAC species	3 =	
1					FACU species	4 =	
2					UPL species	5 =	
3					Coln. Totals:	(A)	(B)
4					Prevalence Index =	B/A =	
5					Hydrophytic Vegetation Indicators		
	= Total Cover		Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
#	Shrub Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1					Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4					Vegetation Strata Definitions		
5					= Total Cover		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	CAREX SPARTEA	20	Y	FACW	Woody Vine – All woody vines		
2	CINNAMON BARK (OSALINDA CINNAMOMUM)	20	Y	FACW			
3					Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
4					Remarks: NOTED SPAGNUM MOSS CANOPY @ ~100% PROVIDED BY BIRCH, RED MAPLE, & RED OAK IMMEDIATELY OUTSIDE OF BOUNDARY. PER REQ. SUPPLEMENT, PFO CONSIDERED W/ 70% COVER BY TREES IMMEDIATELY OUTSIDE OF WETLAND BOUNDS.		
5							
6							
7							
8							
9							
10							
	= Total Cover						
#	Woody Vine Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1		100					
2							
	= Total Cover						

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-JHS-12
SOILS

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

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 3	- 1 -	- 1 - 1 - 1 -	-	-
3 - 4	24R 3/1 100	- 1 - 1 - 1 -	-	SILT LOAM
4 - 12	104R 6/2 1 80	104R 4/6 1 20 1 2M 1 M	Common, Prominent	SILT LOAM
-	1	1 1 1		
-	1	1 1 1		
-	1	1 1 1		

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

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input checked="" 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 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-00012*

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

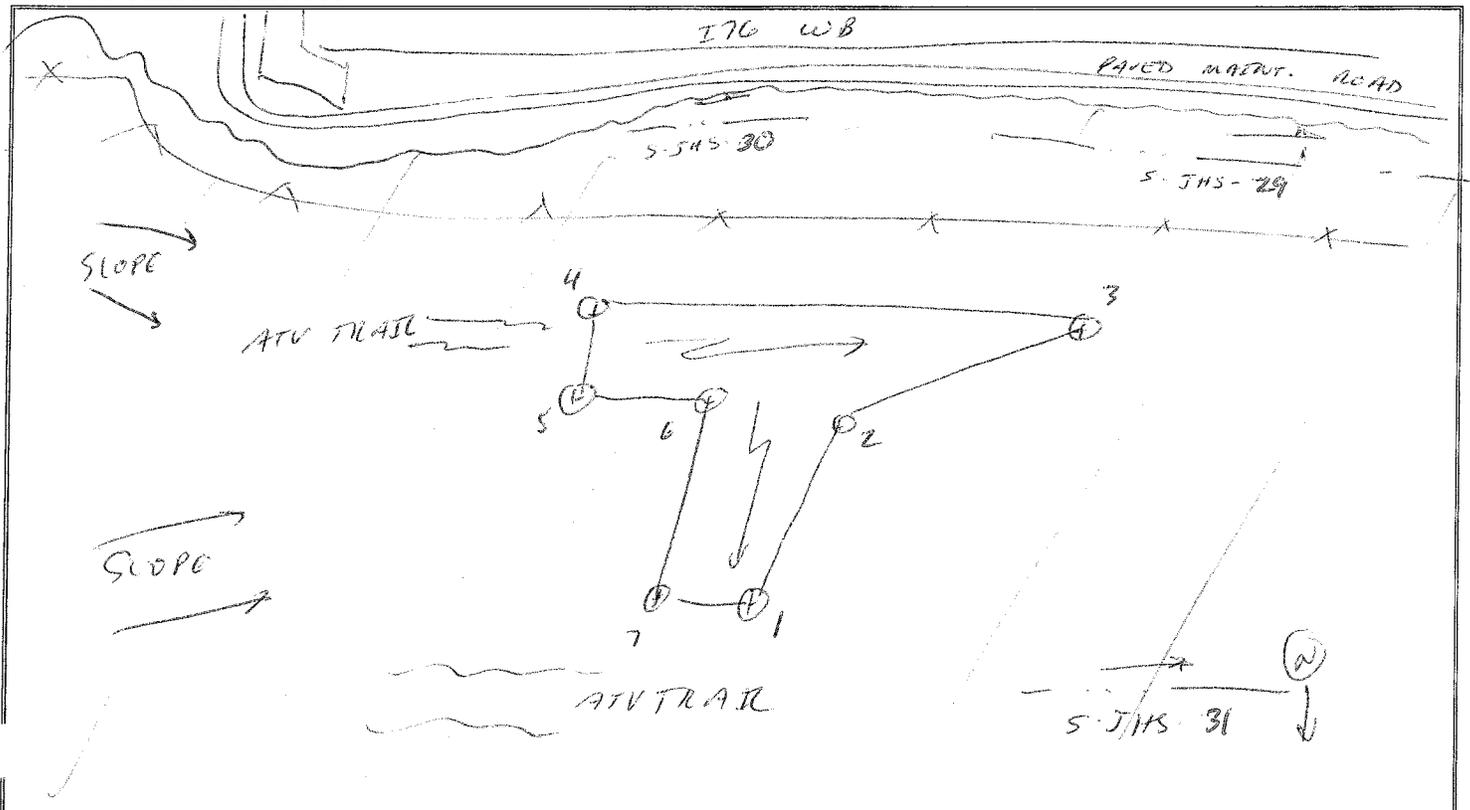
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface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

FIELD OBSERVATIONS

Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: <i>3</i> (in)
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: <i>1</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:

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W. JHS. 12

VEGETATION

#	All Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator
1	RED MAPLE (<i>ACER RUBRUM</i>)	33	Y	FAC
2	BLACK CHERRY (<i>PRUNUS SEROTINA</i>)	33	Y	FACU
3	SUGAR MAPLE (<i>ACER SACCHARUM</i>)	33	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 @ 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 - 4	2.5Y 2.5/1 100	- 1 - 1 - 1 -	-	SILT LOAM
4 - 10+	2.5Y 2/4 100	- 1 - 1 - 1 -	-	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"/> 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 checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to:	8 (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Remarks: NO WETLAND HYDROLOGY NOTED @ SAMPLE PT.				

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

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

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)
A115	PTC ALLEGHENY TURNER	05.21.12	N/A	W-JHS-12	
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:	
SAC, DLM				ASSOC. W/ STREAM S-JHS-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 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 >	14	11								13.7	0.69

0.69

Comments:
 LOCATED W/IN UPLAND, DELICIOUS FOREST.



W-JHS-12 overview, facing south-southeast.



W-JHS-12 overview, facing southwest.



W-JHS-12 wetland soil test pit.



W-JHS-12 upland soil test pit.

WETLAND W-JHS-13

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

Project/Site: Allegheny Tunnel		Date: 05.23.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SLC, DLM		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W JHS-13	
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 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: 10 %		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.	1 - ESE	3 -	
	2 - WSW	4 -	
Remarks: APPARENTLY ISOLATED			

SUMMARY OF FINDINGS

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

NOTE:

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

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-JHS-13

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 =
					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 @ 90%, PROVIDED BY ASPEN & SUGAR MAPLES IMMEDIATELY OUTSIDE OF WETLAND BOUNDARY, PER USACE SUPPLEMENT, 70% CANOPY REQ'D. W/ TREES IMMEDIATELY OUTSIDE OF WETLAND BOUNDARY.	
					= Total Cover	
#	Sapling Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
3						
4						
5						
					= Total Cover	
#	Shrub Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1	WITCH HAZEL (<i>HAMAMELIS VIRGINIANA</i>)	10	N	FAC		
2						
3						
4						
5						
					= Total Cover	
#	Herb Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1	SWEET GALE (<i>SYMPLOCARIS FOETIDUS</i>)	40	Y	OBL		
2	CORONILLA (<i>OSUNDA CINNAMOMI</i>)	40	Y	FACW		
3	CAREX SP.	10	N	-		
4						
5						
6						
7						
8						
9						
10						
					= Total Cover	
#	Woody Vine Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
					= Total Cover	

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W. JHS-13

SOILS

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

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 3	- / -	- / - / - / -	-	-
3 - 6	2.5Y 3/1 100	- / - / - / -	-	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 INDICATORS (Check All That Apply)

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

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

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

Hydric Soil Present? Yes No

Remarks: REFUSAL @ 6" DUE TO ROCK

WETLAND ID #: W-JHS-13

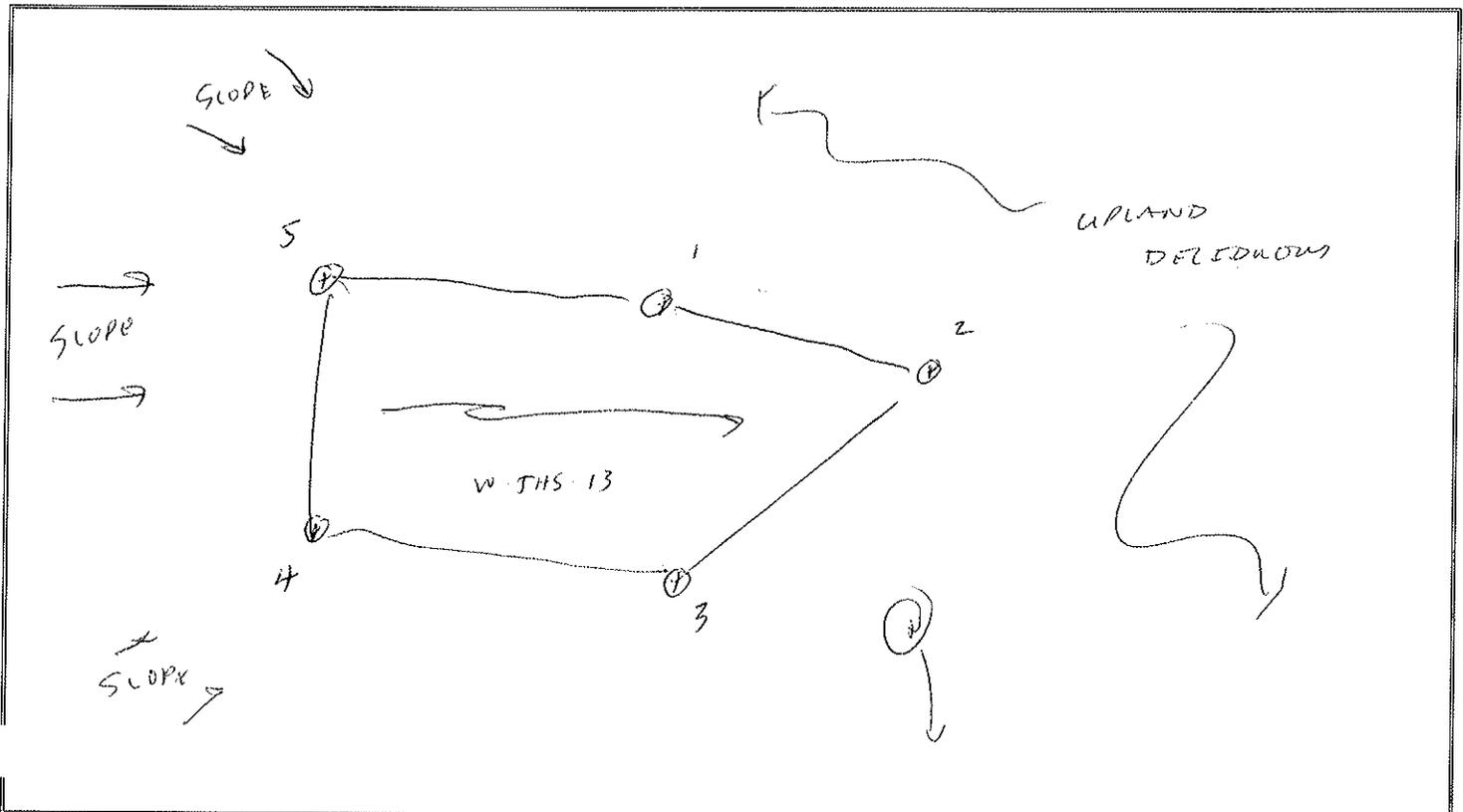
HYDROLOGY

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 checked="" 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 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 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 checked="" type="checkbox"/> No	Depth of: 4 (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: APPARENTLY ISOLATED

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

↑ W-JHS-13

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SWAMP MAPLE (ACER SACCABARUM)	20	Y	FNEU
2	HERNIA (HERNIA NIGRA)	20	Y	ITC 4
3				
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND VEG IS NOT PRESENT @ SAMPLE PT.				

SOILS

Soil Survey Map Unit Name/Symbol:			Drainage Class:	
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- / -	- / - / - / -	-	-
2 - 4	10YR 3/2 / 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: WETLAND SOILS NOT PRESENT @ SAMPLE PT. REFUSAL @ 4" SUB-TO ROCK				

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"/> 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.			



W-JHS-13 overview, facing south-southeast.



W-JHS-13 overview, facing southwest.



W-JHS-13 wetland soil test pit.



W-JHS-13 upland soil test pit.

WETLAND W-SRC-01

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

Project/Site: Allegheny Tunnel		Date: 05.10.12	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLE		State: PA	
Cowardin Classification (Percentage): PFD (100)		Wetland ID #: W-SRC-01 (CR4)	
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 / ATV 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 checked="" type="checkbox"/> Other - ATV ROADBED		
Slope: ~5%		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: (9)		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - NE 3 - 2 - SW 4 -	
Remarks: APPARENTLY ISOLATED - NO VISIBLE 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: CANOPY > 30%			

NOTE:

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

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: *10-SAC-01 (GAA)*

SOILS

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

PROFILE DESCRIPTION

Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
<i>0 - 2</i>	<i>- / -</i>	<i>- / - / - / -</i>	<i>-</i>	<i>-</i>
<i>2 - 4</i>	<i>5Y 2.5/1 / 100</i>	<i>- / - / - / -</i>	<i>-</i>	<i>SILT LOAMY</i>
<i>4 - 12</i>	<i>2.5Y 5/2 / 60</i>	<i>7.5YR 5/8 / 40 / RM / M</i>	<i>many, prominent</i>	<i>CLAY LOAMY</i>
-	<i>/</i>	<i>/ / /</i>		
-	<i>/</i>	<i>/ / /</i>		
-	<i>/</i>	<i>/ / /</i>		

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

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input 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: *SOILS ARE DISTURBED AND COMPACTED - ATV ROADBED.*

WETLAND ID #: W-SRC-01 (GRAY)

HYDROLOGY

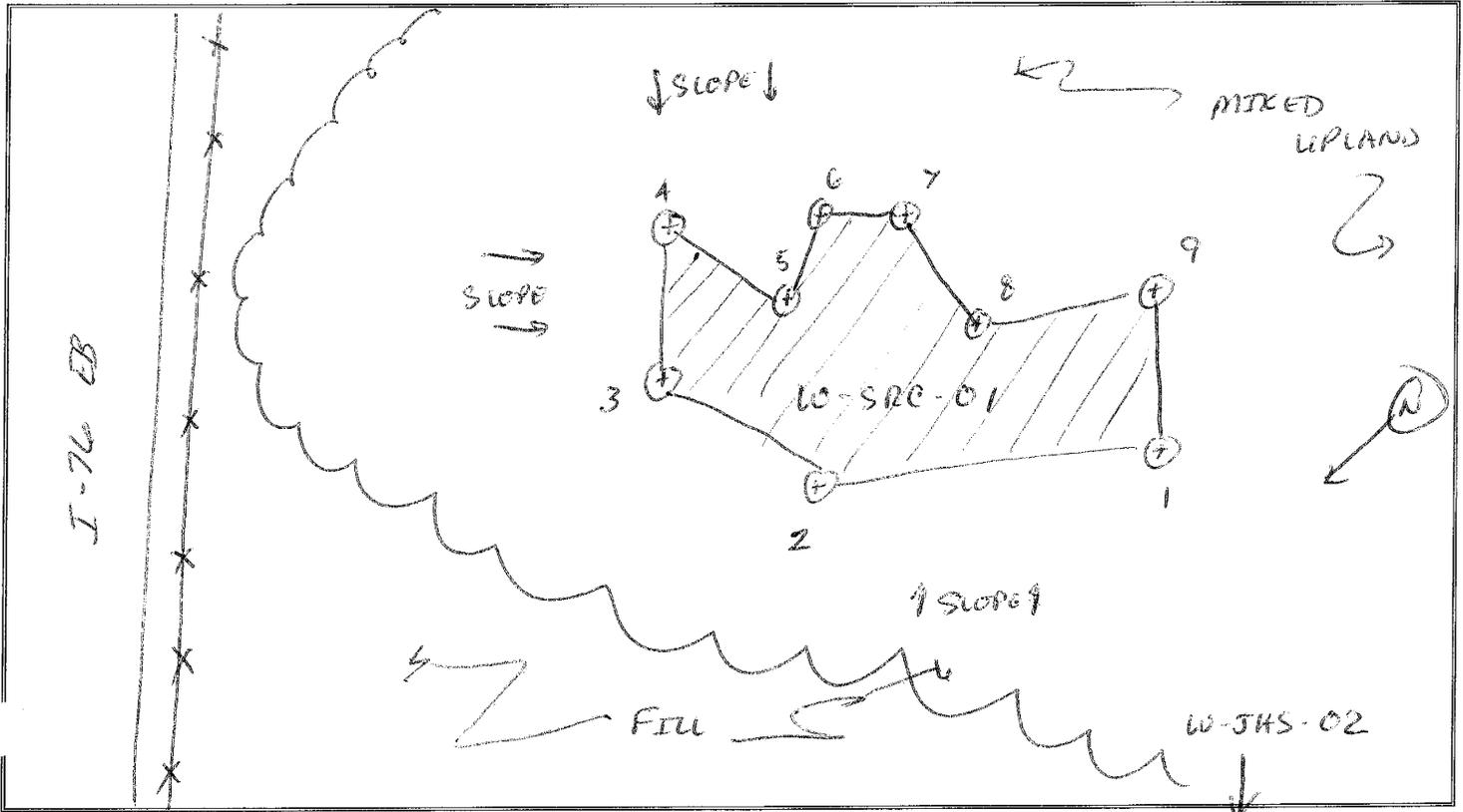
WETLAND HYDROLOGY INDICATORS	
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 2 (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth to: 0 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: ATV ROADBED - COMPACTED. NOTED APPARENT GROUNDWATER

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point
 ↗ W.S.R.C. 07

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	RED PINE (PINUS RESINOSA)	60	Y	FACU
2	RED MAPLE (ACER RUBRUM)	40	Y	FAR
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. (SD/R).				

SOILS

Soil Survey Map Unit Name/Symbol: N/A		Drainage Class: N/A		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- 1 -	- 1 - 1 - 1 -	-	-
2 - 4	5Y 2.5/1 100	- 1 - 1 - 1 -	-	SILT LOAM
4 - 12	2.5Y 5/2 60	7.5YR 5/8 40 1 RM 1 M	MANY, PROMINENT	
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 ARE PRESENT @ SAMPLE PT.				

HYDROLOGY

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



W-SRC-01 overview, facing northeast.



W-SRC-01 overview, facing northeast.



W-SRC-01 wetland soil test pit.

WETLAND W-SRC-02

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

Project/Site: Allegheny Tunnel		Date: 05.15.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLE		State: PA	
Cowardin Classification (Percentage): PCM (100%)		Wetland ID #: W-SRC-02	
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 checked="" type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)? MAINTAINED, MOWED, HERB.			
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: 25%		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 9		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - W	3 -
		2 - E	4 -
Remarks: ADJ. TO S-SRC-06 - POSSIBLY JURISDICTIONAL.			

SUMMARY OF FINDINGS

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

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. 52e-02*

VEGETATION

					Dominance Test Worksheet	
#	Tree Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	# of Dominant Species that are OBL, FACW, or FAC?	<i>2</i> (A)
1					Total # of Dominant Species across all Strata?	<i>2</i> (B)
2					% of Dominant Species that are OBL, FACW, or FAC?	<i>100</i> (A/B)
3					Prevalence Index Worksheet	
4					Total % Cover of:	Mult. by:
5					OBL species	<i>1</i> =
6					FACW species	<i>2</i> =
					FAC species	<i>3</i> =
#	Sapling Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	FACU species	<i>4</i> =
1					UPL species	<i>5</i> =
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
					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					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	<i>LEPISYLOS SP.</i>	<i>50</i>	<i>4</i>	<i>FACW</i>	Hydrophytic Vegetation Present?	
2	<i>WINDSTEM (VERBENA ALTERNICOLOR)</i>	<i>20</i>	<i>4</i>	<i>FAC</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3	<i>SILUNE CABBAGE (SYMPLOCARPUS FOETIDUS)</i>	<i>15</i>	<i>N</i>	<i>OBL</i>	Remarks:	
4	<i>SOLEDAHO SP.</i>	<i>15</i>	<i>N</i>	<i>-</i>	<i>LOCATED WITH POWERLINE ROW. ROUTINELY MAINTAINED.</i>	
5						
6						
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-02

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 5/2 / 100	- / - / - / -	-	SAND/SILT
4 - 10	2.5Y 7/1 / 60	2.5Y 6/6 / 40 / RM / M	Common, Distinct	SANDY LOAM
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		

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

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input 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 checked="" 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-02

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

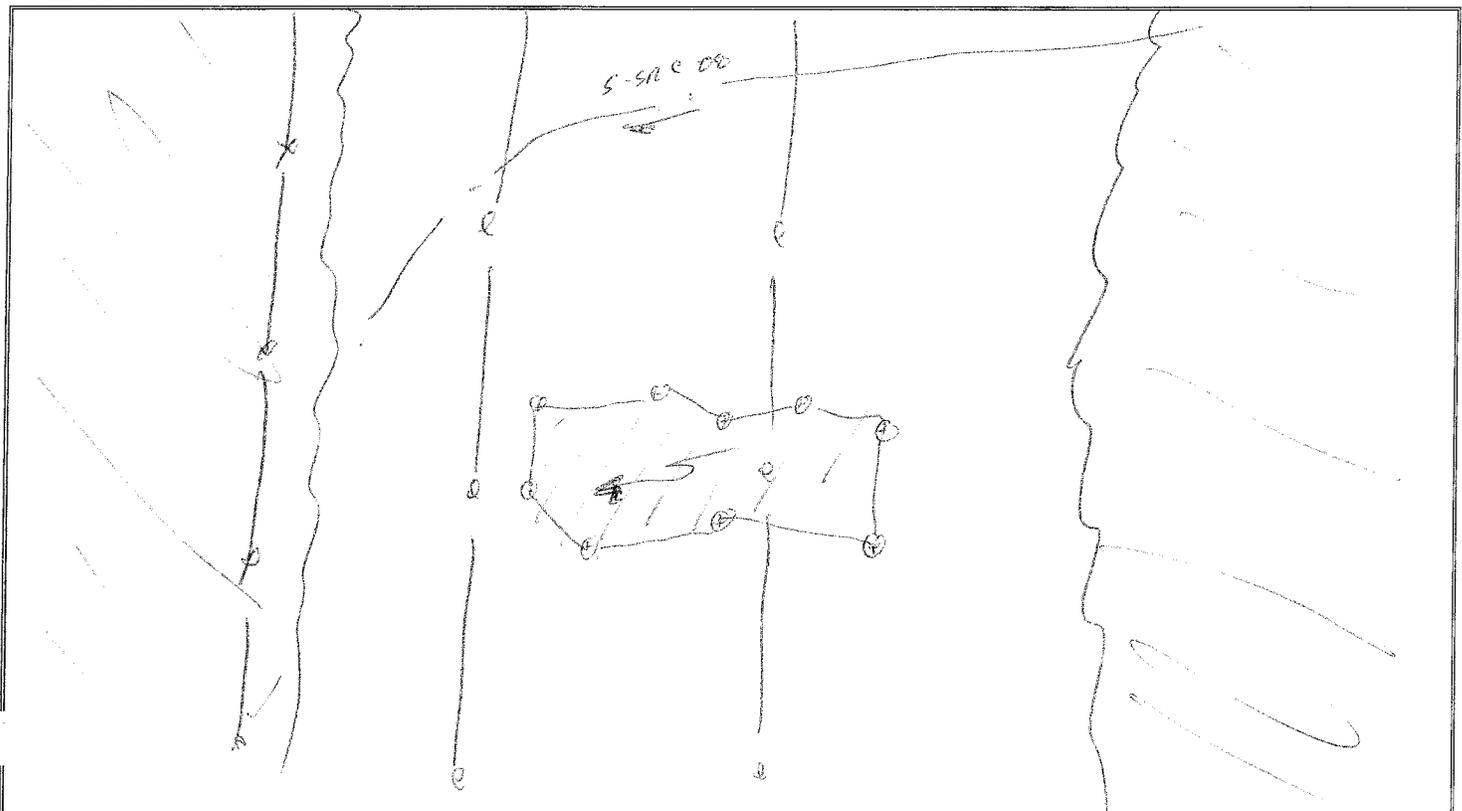
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input 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 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:

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point
 W-5120-02

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	HAY-SCENTED FERN (DENNSTAEDIA PUNERLOBIFIDA)	60	Y	UPL
2	RIBUS SP.	20	N	-
3	SOLIDAGO SP.	20	N	-
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
0 - 3	- 1 -	- 1 - 1 - 1 -	-	-
3 - 8	2.5Y 7/4 1 100	- 1 - 1 - 1 -	-	SANDY SILT
-	1	1 1 1		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: RESIST @ 8" DUE TO ROCK. HYDRIC SOIL NOT PRESENT				

HYDROLOGY

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

Wetland Condition Assessment Form

Pennsylvania Wetland Condition Level 1 Rapid Assessment Version 1.0

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

Project #	Project Name	Date	Proposed Impact Size (acres)	AA #	AA Size (acres)
A11J	PTE ALLEGHENY TUNNOL	05.15.12	N/A	W·SRC·02	
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:	
SRC, KLE				W/IN MAINTAINED ELEC. ROW	

1. Wetland Zone of Influence Condition Index

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

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

Scoring:	% ZOI Area >	0.80	0.20								100 %	CI
	Score >	4	10								5.2 0.00	0.26

Comments: LOCATED WITHIN A MAINTAINED ELECUTRICAL ROW. WETLAND FORMED DUE TO POOL STREAM RESTORATION.

0.26



W-SRC-02 overview, facing east.



W-SRC-02 overview, facing west.



W-SRC-02 wetland soil test pit.



W-SRC-02 upland soil test pit.

WETLAND W-SRC-03

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

Project/Site: Allegheny Tunnel		Date: 05.16.12	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC KLE		State: PA	
Cowardin Classification (Percentage): <i>PEM (100)</i>		Wetland ID #: <i>W SRC-03</i>	
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 type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)? <i>perennial flow now</i>			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: <i>10</i> %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: <i>9</i>		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. <i>N/A</i>		1 - <i>SW</i> 3 -	
		2 - <i>NE</i> 4 -	
Remarks: <i>ASSOC. W/ S-SRC-03 - JURISDICTION TC</i>			

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: <i>w/on MAINTAINED now.</i>					

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-03

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	- / -	- / - / - / -	-	-
3 - 4	10YR 3/2 100	- / - / - / -	-	SANDY SILT
4 - 11+	10YR 4/2 75	10YR 3/4 25 RM M	FEW, FAINT	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 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 checked="" 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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Remarks:

WETLAND ID #: *W-SAC-03*

HYDROLOGY

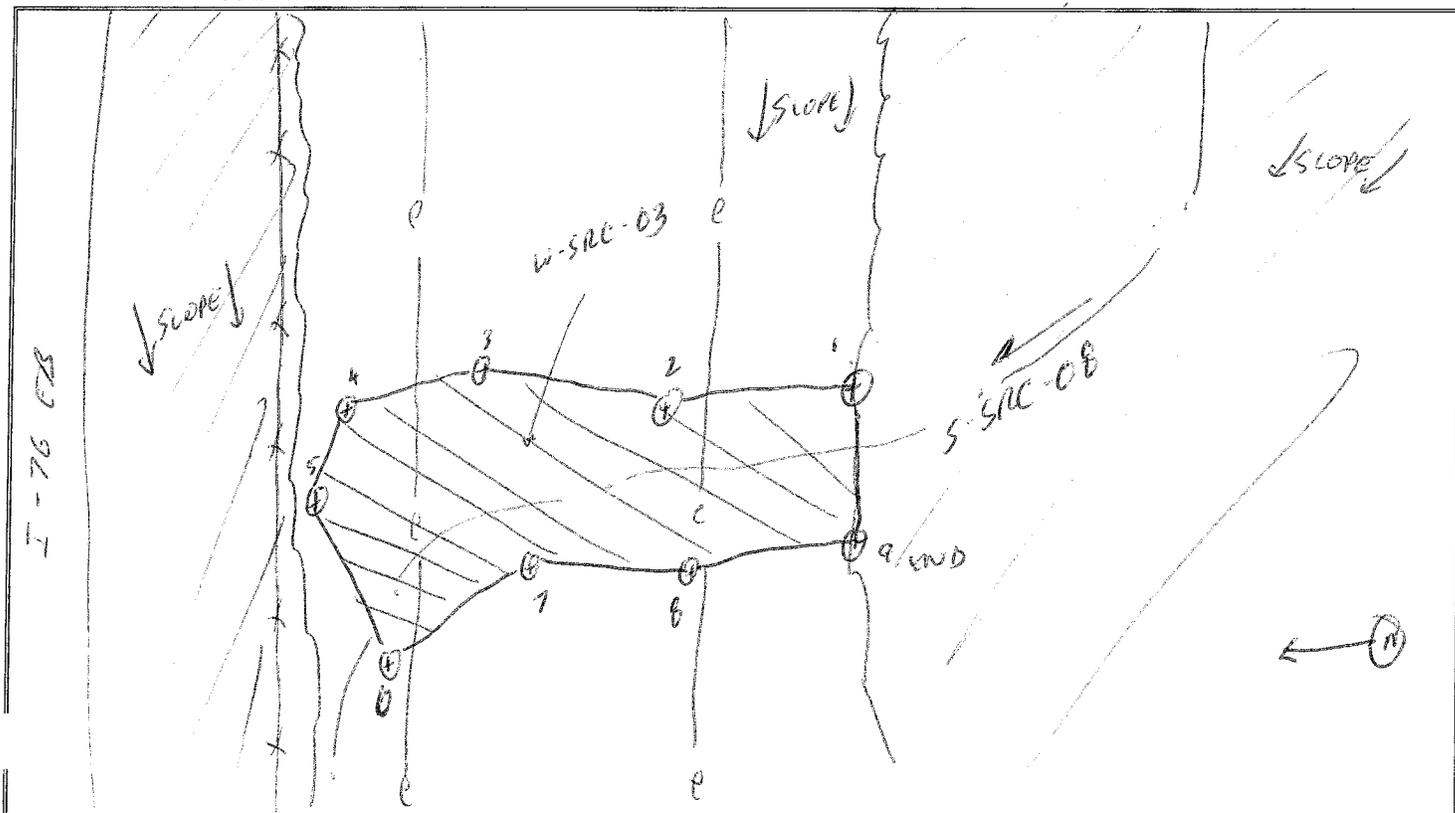
WETLAND HYDROLOGY INDICATORS	
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated 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>ASSOC. w/ S-SAC-08</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>2</i> (in)
Water Table Present in Pit?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: <i>5</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-08*

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W. SRC-03

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	HAY-SLEWED FERN (DENNSTAEDTA PUNCTULOBULA)	60	Y	UPL
2	AGROSTIS SP.	30	Y	-
3	LOWBUSH BLUE BERRY (VACCINIUM ANGUSTIFOLIUM)	5	N	FACU
4	HULLY BERRY (GAYUSSACHTA BACCATA)	5	N	FACU
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 - 5	- 1 -	- 1 - 1 - 1 -	-	-
5 - 16	10YR 9/8 100	- 1 - 1 - 1 -	-	SANDY LOAM
	1	1 1 1		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND SOIL CHARACTERISTICS NOT PRESENT @ SAMPLE SITE.				

HYDROLOGY

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

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	05.16.12	N/A	W·SRC·03	
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:	
SRC, KLE				ASSOC. W/ STREAM S·SRC·08	

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. 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 >	4	12						5.6	0.28

0.28

Comments:
 LOCATED W/IN A MAINTAINED ELECTRICAL ROW. WETLAND FORMED DUE TO POOR STREAM RESTORATION,



W-SRC-03 overview, facing northeast.



W-SRC-03 overview, facing southwest.



W-SRC-03 wetland soil test pit.



W-SRC-03 upland soil test pit.

WETLAND W-SRC-04

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

Project/Site: Allegheny Tunnel		Date: 05.16.12	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, LLC		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W-SRC-04	
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 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: 6		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - NE 3 - 2 - SW 4 -	
Remarks: APPARENTLY ISOLATED - NO OBSERVED 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: CANDY C ~ 90% - SUGAR MAPLE & BIRCH					

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-5R0-04

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?	1 (B)
3					% of Dominant Species that are OBL, FACW, or FAC?	50 (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 ~ 90%. TREE SP. OUTSIDE OF WETLAND BOUNDARY. NOTED SPAGNUM MOSS WITH BOUNDARY. PER USACE SUPPLEMENT, PFD REFS. 70% CANOPY BY TREES IMMED. OUTSIDE OF WETLAND BOUNDS.	
					Herb Stratum Species	
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1	SPIKE RUSH (<i>ELOCHARIS PAUCISTRIS</i>)	60	Y	OBL		
2	CAREX SP.	35	Y	-		
3	SILKLINK CABBAGE (<i>SYMPLOCARPUS FOETIDUS</i>)	45	NOTED	OBL		
4						
5						
6						
7						
8						
9						
10						
					= Total Cover	
#	Woody Vine Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
					= Total Cover	

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: *W. SRC-04*

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 - 6</i>	<i>10YR 4/1 / 100</i>	<i>- / - / - / -</i>	<i>-</i>	<i>SANDY CLAY</i>
<i>6 -</i>	<i>2.5 5/1 / 65</i>	<i>7.5YR 5/8 / 35 / RM / PL</i>	<i>COMMON, DISTINCT</i>	<i>SANDY CLAY</i>
<i>-</i>	<i>/</i>	<i>/ / /</i>		
<i>-</i>	<i>/</i>	<i>/ / /</i>		
<i>-</i>	<i>/</i>	<i>/ / /</i>		

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

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

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

INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)

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

Hydric Soil Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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Remarks: *NOTED CLAY COMPONENT.*

WETLAND ID #: W-522-04

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

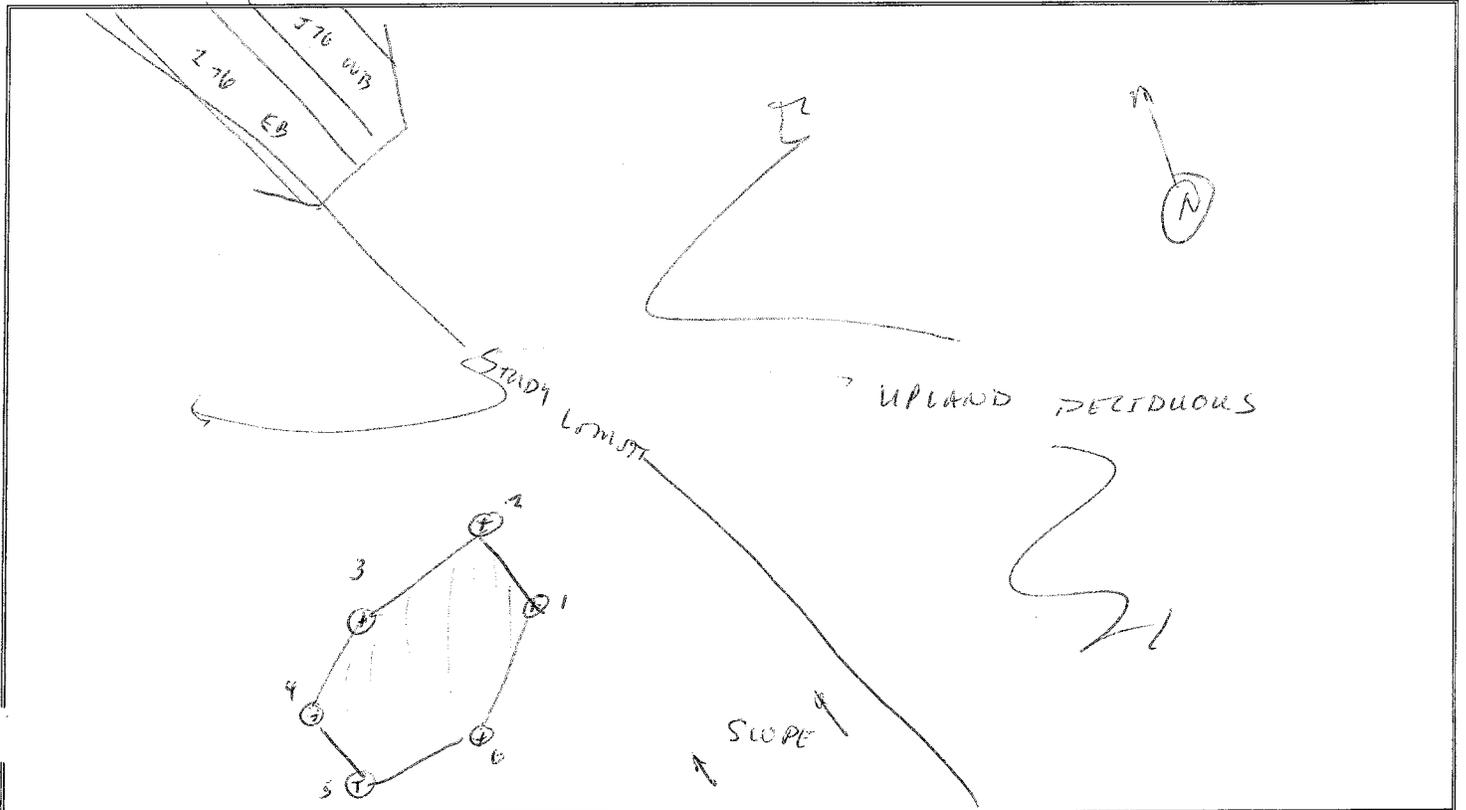
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test
<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Other
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input 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: 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:

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

VEGETATION

^
- W. SAC. 04

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	SUGAR MAPLE (Acer saccharum)	30	Y	FACU
2	BELCH (Betula lenta)	30	Y	FACU
3	CHESNUT OAK (Quercus prinus)	20	Y	UPL
4	HAYSCENTED FERN (Dennstaedtia punctilobula)	20	Y	UPL
5	FALSE SOLOMONS SEAL (Mastanthemum racemosum)	NOTED	N	FACU
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 - 4	- 1 -	- 1 - 1 - 1 -	-	-
4 - 11+	10YR 4/4 1 MO	- 1 - 1 - 1 -	-	SANDY SILT CLAY
-	1	1 1 1		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: NO WETLAND 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"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: NO WETLAND HYDROLOGY NOTED @ SAMPLE PT.			



W-SRC-04 overview, facing northeast.



W-SRC-04 overview, facing southwest.



W-SRC-04 wetland soil test pit.



W-SRC-04 upland soil test pit.

WETLAND W-SRC-05

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

Project/Site: Allegheny Tunnel		Date: 05.16.12	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLE		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W.SRC.05	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel		
<input type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: ~5 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 8		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - NW 3 -	
		2 - SE 4 -	
Remarks: CONNECTED VIA S.SRC.15 - JURISDICTIONAL			

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: CANOPY @ ~90%. MOST TREES OUTSIDE, RED MAPLE W/IN.					

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. 05

VEGETATION

#	Tree Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet	
1	RED MAPLE (<i>Acer Rubrum</i>)	33	Y	FAC	# of Dominant Species that are OBL, FACW, or FAC?	3 (A)
2					Total # of Dominant Species across all Strata?	4 (B)
3					% of Dominant Species that are OBL, FACW, or FAC?	75 (A/B)
4					Prevalence Index Worksheet	
5					Total % Cover of:	Mult. by:
6					OBL species	1 =
		33		= Total Cover	FACW species	2 =
#	Sapling Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	FAC species	3 =
1					FACU species	4 =
2					UPL species	5 =
3					Coln. Totals: (A)	(B)
4					Prevalence Index =	B/A =
5					Hydrophytic Vegetation Indicators	
				= Total Cover	Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
#	Shrub Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1	WITCH HAZEL (<i>HAMAMISUS VIRGINIANUS</i>)	20	Y	FACU	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	
		20		= Total Cover	Sapling – Woody plant 20+ feet high & <3 in. dbh	
#	Herb Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator	Shrub – Woody plant ~3-20 feet high	
1	SILK CABBAGE (<i>SYMPLOCARPUS FOETIDUS</i>)	70	Y	OBL	Woody Vine – All woody vines	
2	CINNAMON FERN (<i>OSMUNDA CINNAMOMI</i>)	20	Y	FACW	Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3	CAREX SP.	10	N	-	Remarks: CANOPY @ ~ 90% . PROVIDED BY RED MAPLE & BIRCH, MOST OF WHICH IS OUTSIDE OF WETLAND BOUNDARY. PER USACE SUPPLEMENT, PFD REQS. 70% CANOPY FROM TREES IMMED. OUTSIDE OF WETLAND BOUND.	
4						
5						
6						
7						
8						
9						
10						
				= Total Cover		
#	Woody Vine Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator		
1						
2						
				= Total Cover		

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W.S.R.C. 05

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	- / -	- / - / - / -	-	-
3 - 6	2.5Y 3/2 / 100	- / - / - / -	-	SILT LOAM
6 - 10	2.5Y 3/1 / 90	10YR 3/6 / 10 / RM / PL	Few, Dull	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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
-----------------------------	---

Remarks:

WETLAND ID #: W-SAC-05

HYDROLOGY

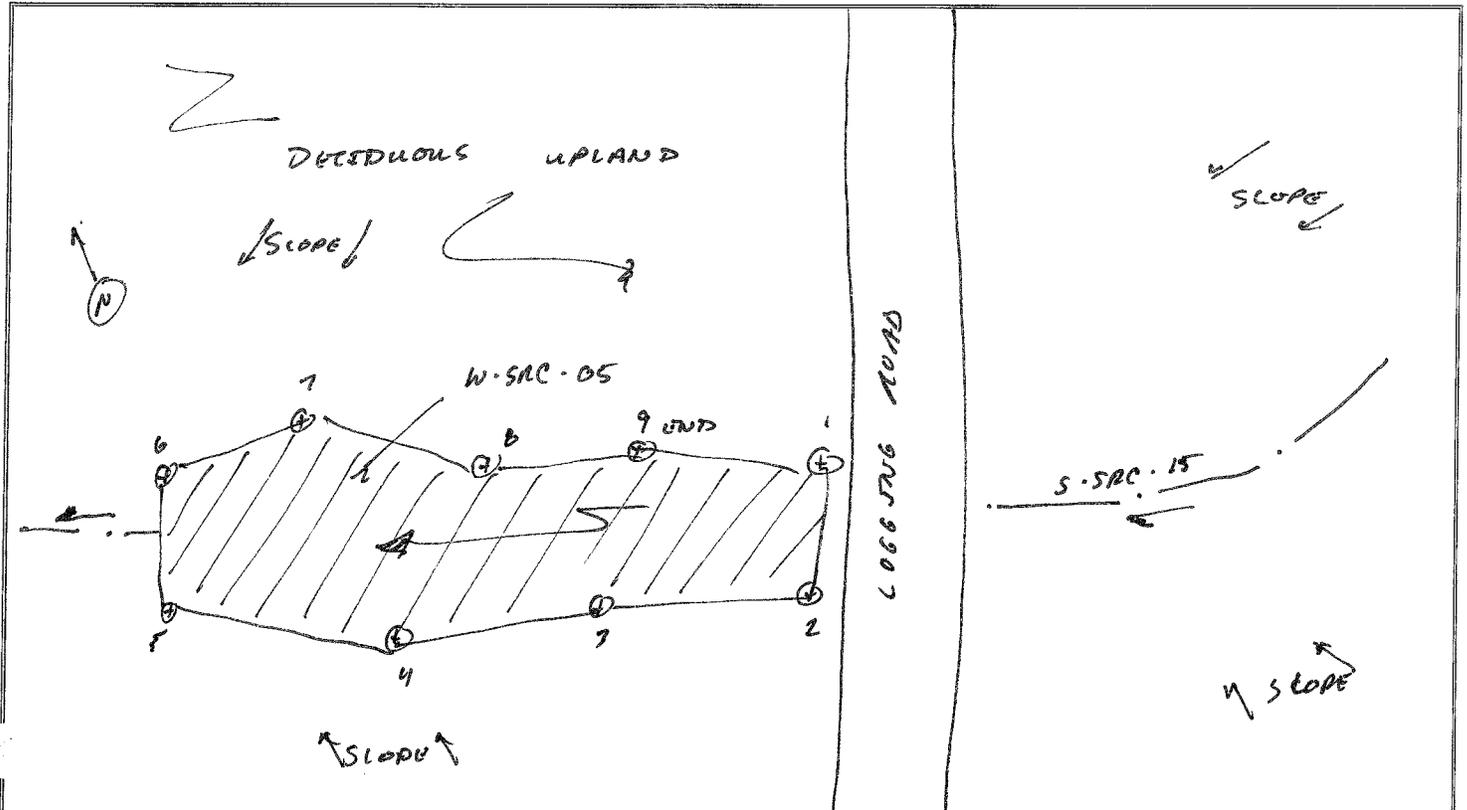
WETLAND HYDROLOGY INDICATORS

Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input checked="" type="checkbox"/> Surface Water (A1)		<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)		<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)		<input checked="" type="checkbox"/> Drainage Patterns	
<input type="checkbox"/> Water Marks (B1)		<input type="checkbox"/> Moss Trim Lines (B16)	
<input checked="" type="checkbox"/> Sediment Deposits (B2)		<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)		<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input 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 checked="" type="checkbox"/> Other <i>ASSOC. w/ S-SAC-15</i>	
<input checked="" 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: <i>11</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-15*

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-5AC-05

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	BIRCH (BETULA LINTA)	15	Y	FACU
2	SUGAR MAPLE (Acer SACCHARUM)	15	Y	FACU
3				
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
0 - 3	- / -	- / - / - / -	-	-
3 - 6	10YR 2/6 1 100	- / - / - / -	-	SANDY LOAM
6 - 10	10YR 4/6 1 100	- / - / - / -	-	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: WETLAND SOIL INDICATORS ARE NOT PRESENT @ SAMPLE POINT.				

HYDROLOGY

WETLAND HYDROLOGY INDICATORS			
Primary Indicators (1 or more required)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available
FIELD OBSERVATIONS			
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: WETLAND HYDROLOGY NOT 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)	
A11J	PTC ALLEGHENY TUNNEL	05.16.12	N/A	W.SRC.05		
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes:		
SRC, KLF				ASSOC. W/ STREAM S.SRC.15		

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 >	0.90	0.10					100 %	CI
	Score >	13	9					12.6 0.20	0.90

0.63

Comments:
 WETLAND IS ASSOC. W/ STREAM S.SRC.15 AND IS LOCATED NEXT TO AN EXISTING LOGGING ROAD (DEPT).



W-SRC-05 overview, facing north-northwest.



W-SRC-05 overview, facing southeast.



W-SRC-05 wetland soil test pit.



W-SRC-05 upland soil test pit.

WETLAND W-SRC-06

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-SAL-06

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	Red Maple (<i>Acer rubrum</i>)	100	y	FAC	3	(A)
2					3	(B)
3					100	(A/B)
4					Prevalence Index Worksheet	
5					Total % Cover of:	Mult. by:
6					OBL species	1 =
		100		= Total Cover	FACW species	2 =
					FAC species	3 =
#	Sapling Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	FACU species	4 =
1	Red Maple (<i>Acer rubrum</i>)	15	N	FAC	UPL species	5 =
2					Coln. Totals:	(A) (B)
3					Prevalence Index =	B/A =
4					Hydrophytic Vegetation Indicators	
		15		= Total Cover	Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
#	Shrub Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1					Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input type="checkbox"/> No
2					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3					Problematic Hydrophytic Veg	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4					Vegetation Strata Definitions	
5					Tree – Woody plant 20+ feet high & 3+ in. dbh	
				= 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	Sweetgum (<i>Liquidambar styraciflua</i>)	60	y	OBL	Woody Vine – All woody vines	
2	Cinnamon Fern (<i>Osmunda cinnamomea</i>)	20	y	FACW	Hydrophytic Vegetation Present?	
3	Carex sp.	10	N	-	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
4					Remarks:	
5					Canopy @ ~90% - Red Maple w/in boundary	
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 #: *W52C-06*

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>- 1 -</i>	<i>- 1 - 1 - 1 -</i>	<i>-</i>	<i>-</i>
<i>3 - 10</i>	<i>10YR 5/2 1 100</i>	<i>- 1 - 1 - 1 -</i>	<i>-</i>	<i>SILTY SAND</i>
-	<i>1</i>	<i>1 1 1</i>		
-	<i>1</i>	<i>1 1 1</i>		
-	<i>1</i>	<i>1 1 1</i>		
-	<i>1</i>	<i>1 1 1</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 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 @ 10" DUE TO ROCK. NO/D HARDLY SEE COMPONENT - STRONG*

WETLAND ID #: W-SRC-06

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

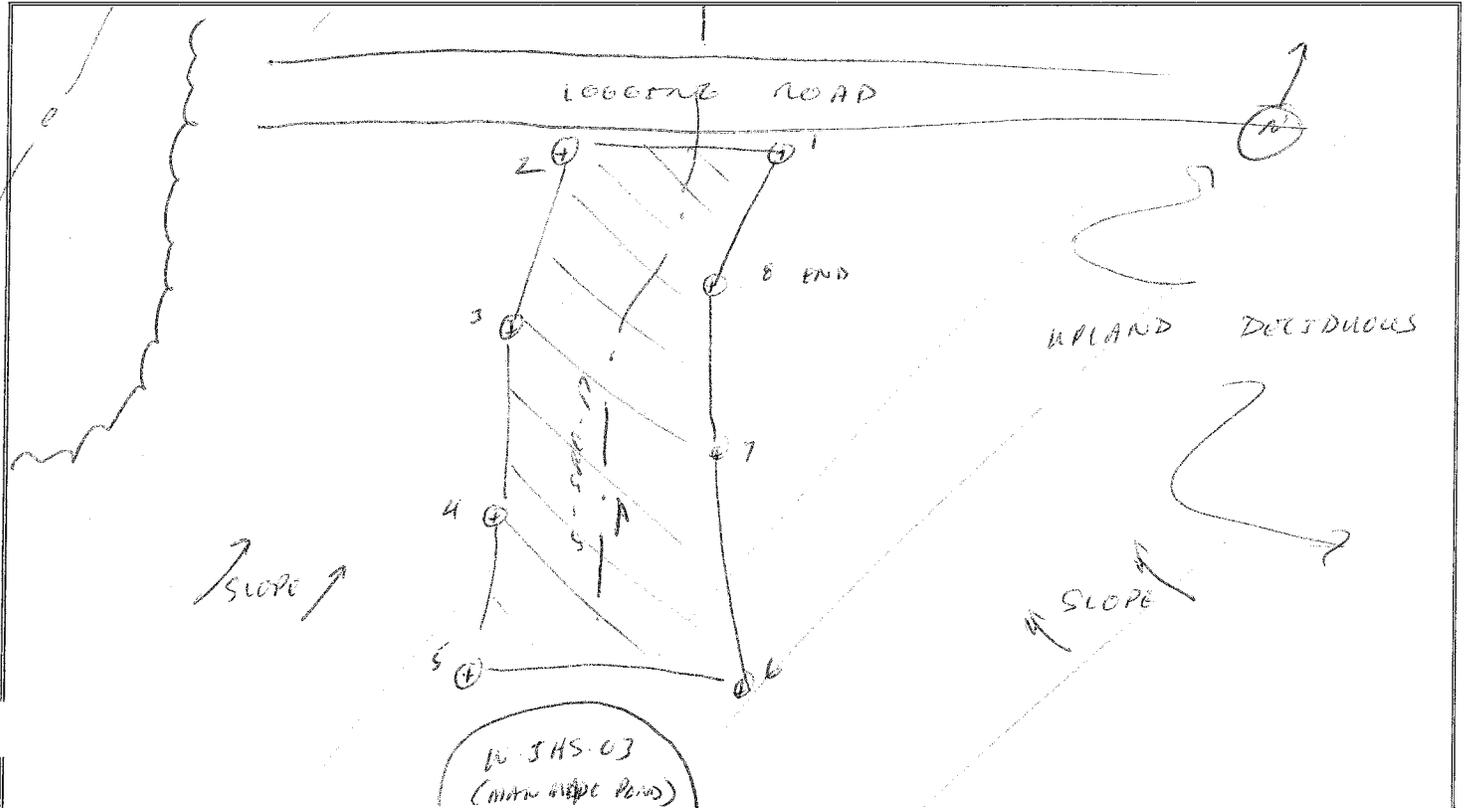
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input 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 checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Other w/ no floodplain S-SRC-17
<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: 2 (in)
Water Table Present in Pit?	<input 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: 6 (in)
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: Assoc. w/ S-SRC-17 - JURISDICTIONAL

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W SAC-06

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	Red maple (Acer rubrum)	25	Y	FAC
2	Beech (Betula peltata)	25	N	FACU
3				
4				
5				
6				
				= Total Cover
Wetland Vegetation Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks: WETLAND VEG IS Absent & 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 - 4	- 1 -	- 1 - 1 - 1 -	-	-
4 - 10	10YR 4/6 100	- 1 - 1 - 1 -	-	SANDY LOAM
-	1	1 1 1		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains				
Location: PL = Pore Lining and M = Matrix				
Hydric Soil Present?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Remarks: REFUSAL @ 10" WETLAND SOIL INDICATORS ARE NOT PRESENT @ SAMPLE PT.				

HYDROLOGY

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



W-SRC-06 overview, facing north-northwest.



W-SRC-06 overview, facing south.



W-SRC-06 wetland soil test pit.



W-SRC-06 upland soil test pit.

WETLAND W-SRC-08

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

Project/Site: Allegheny Tunnel		Date: 05.18.12	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SRC, KLE, DLM		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W SRC-08	
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/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 checked="" type="checkbox"/> Within Stream Channel		
<input checked="" type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input type="checkbox"/> Other -		
Slope: 5 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 8		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - WSC0	3 -
		2 - NE	4 -
Remarks: ASSOC. w/ S. SRC - 19 - JURISDICTIONAL			

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: CANOPY @ ~90% - SUGAR MAPLE & BIRCH IMMED. OUTSIDE BOUND.					

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-520-08

VEGETATION

Tree Stratum Species					Dominance Test Worksheet		
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1					# of Dominant Species that are OBL, FACW, or FAC?	2	(A)
2					Total # of Dominant Species across all Strata?	3	(B)
3					% of Dominant Species that are OBL, FACW, or FAC?	66	(A/B)
					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 =	
					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 TREES OUTSIDE OF WETLAND. PER USACE SUPPLEMENT, CANOPY >70% PROVIDED BY TREES IMMEDIATELY OUTSIDE OF WETLAND BOUNDS.		
Sapling Stratum Species					= Total Cover		
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1							
2							
3							
4							
5							
					Herb Stratum Species		
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator			
1	CAREX SP. CALVERTA	50	Y	OBL			
2	APP. BLUE VIDUA (<i>VIDUA APPALACHENSIS</i>)	20	Y	FACU			
3	SKUNK CABBAGE (<i>SYMPLOCARUS FOETIDUS</i>)	20	Y	OBL			
4	OSTNATON FERN (<i>OSMUNDA CINNAMOMI</i>)	5	N	FACW			
5	SENSITIVE FERN (<i>ONOCLEA SENSIBILIS</i>)	5	N	FACW			
6							
7							
8							
9							
10							
					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-522-08
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 - 12	Gley 25 / 100	- / - / - / -	-	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 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 checked="" 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 SOILS PRESENT

WETLAND ID #: *w-sac 09*

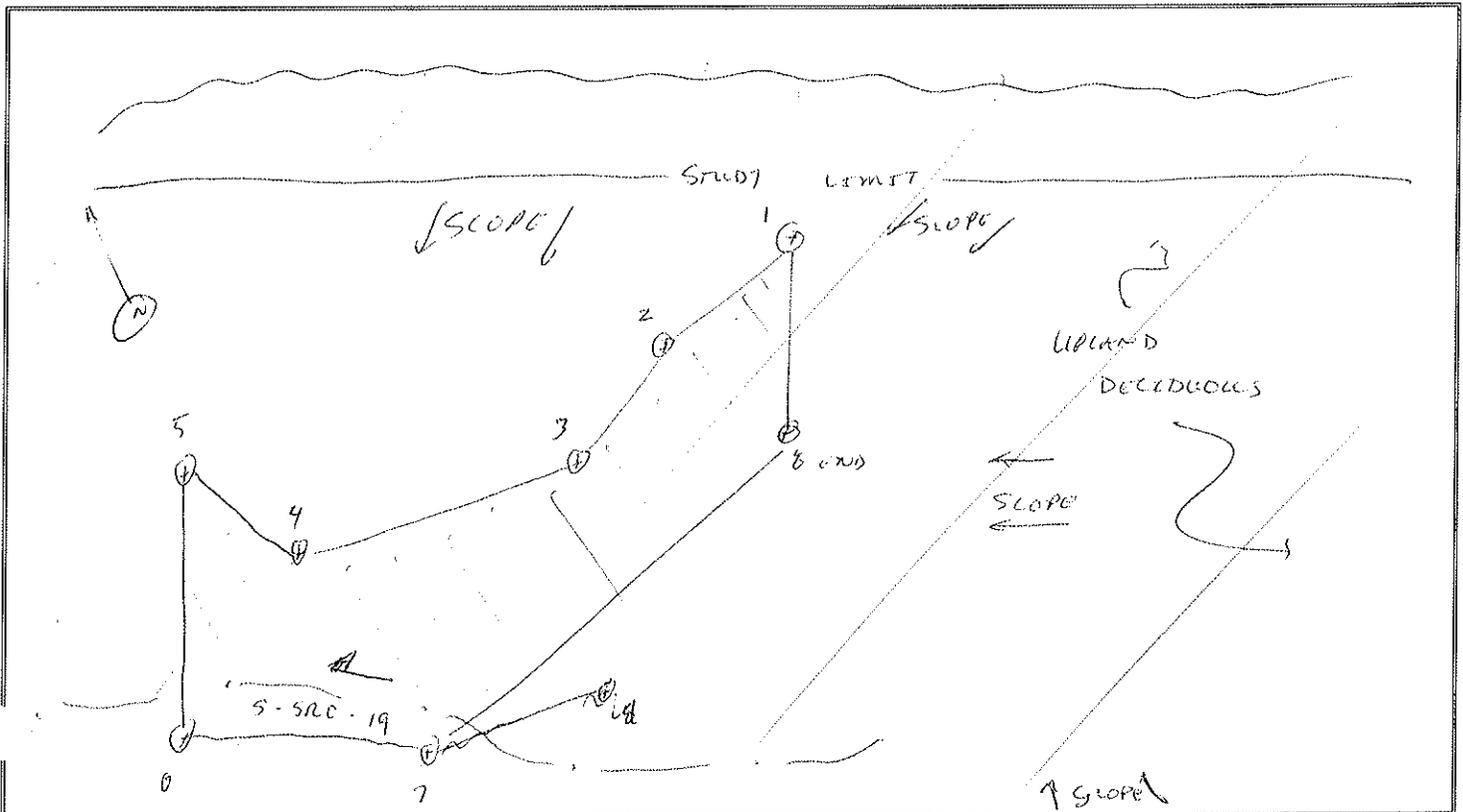
HYDROLOGY

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 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 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>ASSOC. w/ S-SAC-19</i>	<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 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>2</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-19 - JURISDICTIONAL*

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point
 W-SR0-08

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	BIRCH (BETULA LINTA)	50	Y	FACU
2	SUGAR MAPLE (ACER SACCHARUM)	25	Y	FACU
3	WHITE OAK (QUERCUS ALBA)	25	Y	FACU
4				
5				
6				
			= Total Cover	
Wetland Vegetation Present?		<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No
Remarks: WETLAND VEG IS NOT DOMINANT OR PRESENT @ 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 - 6	- / -	- / - / - / -	-	-
6 - 10	7.5YR 5/6 / 90	grey G / 10 / RM / M	Few, 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 type="checkbox"/> Yes		<input checked="" type="checkbox"/> 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"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Drainage Patterns	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard	
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Other	<input type="checkbox"/> Recorded Data (Describe in Remarks)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stream, Lake, or Tidal Gauge	<input type="checkbox"/> Aerial Photographs	
<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Other	<input type="checkbox"/> Other - (i.e., well data)	<input checked="" type="checkbox"/> No Recorded Data Available	
FIELD OBSERVATIONS				
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)	
Water Table Present in Pit?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth of: - (in)	
Saturated Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth to: - (in)	
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Remarks: WETLAND HYDROLOGY NOT PRESENT @ SAMPLE				



W-SRC-08 overview, facing northeast.



W-SRC-08 overview, facing west-southwest.



W-SRC-08 wetland soil test pit.



W-SRC-08 upland soil test pit.

WETLAND W-SRC-09

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

Project/Site: Allegheny Tunnel		Date: 05.18.2012
Applicant/Owner: PTC		County: Somerset
Investigator(s): SAC, KCE, DEM		State: PA
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W-SAC-09
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?		
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?		
NWI Classification: - (if applicable)		
Landform/Geomorphic Setting (Check All That Apply)		
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace	
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel	
<input checked="" type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain	
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan	
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta	
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input checked="" type="checkbox"/> Other - S-SAC-21	
Slope: 5 %	Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:	Datum:	
No. of Flags: 26	Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A	1 - SW	3 -
	2 - NE	4 -
Remarks: ASSOC. W/ S-SAC-21 - JURISDICTIONAL		

SUMMARY OF FINDINGS

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

NOTE:

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

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: w. SRC-09

VEGETATION

Tree Stratum Species					Dominance Test Worksheet	
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1					# of Dominant Species that are OBL, FACW, or FAC?	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)
= 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 =
Sapling Stratum Species					Hydrophytic Vegetation Indicators	
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1					Rapid Test for Hydrophytic Veg.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2					Dominance Test is >50%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3					Prevalence Index is ≤3.0	<input type="checkbox"/> Yes <input type="checkbox"/> No
4					Morphological Adaptations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5					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	
Herb Stratum Species					Hydrophytic Vegetation Present?	
#	Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1	FALSE HELEBORE (<i>VERATUM VIRIDE</i>)	65	Y	FACW+	Remarks: CANOPY @ 80% - WHITE OAK, BLACK CHERRY, & SPICEBUSH - ALL OUTSIDE BOUNDARY OF WETLAND. PER USACE SUPPLEMENT, PRO REQS. 70% CANOPY PROVIDED BY TREES IMMED. OUTSIDE OF WETLAND BOUND.	
2	DENSITIVE FERN (<i>DIAPYCNON SENSIBILE</i>)	20	Y	FACW		
3	CHERRY SP. (<i>CHAMAELIRIUM</i>)	10	N	OBL		
4	CINNAMON FERN (<i>OSMUNDA CINNAMOMUM</i>)	5	N	FACW		
5						
6						
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-09

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 - 8	7.5Y 3/2 / 100	- / - / - / -	-	SANDY SCLT
8 - 12	7.5YR 4/2 / 80	7.5YR 5/6 / 20 / RM / M	FEW, DISCRETE	SANDY LOAM
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		

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

Location: PL = Pore Lining and M = Matrix

HYDRIC SOIL INDICATORS (Check All That Apply)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)
<input checked="" type="checkbox"/> Sulfidic Odor (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input 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 checked="" 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-09

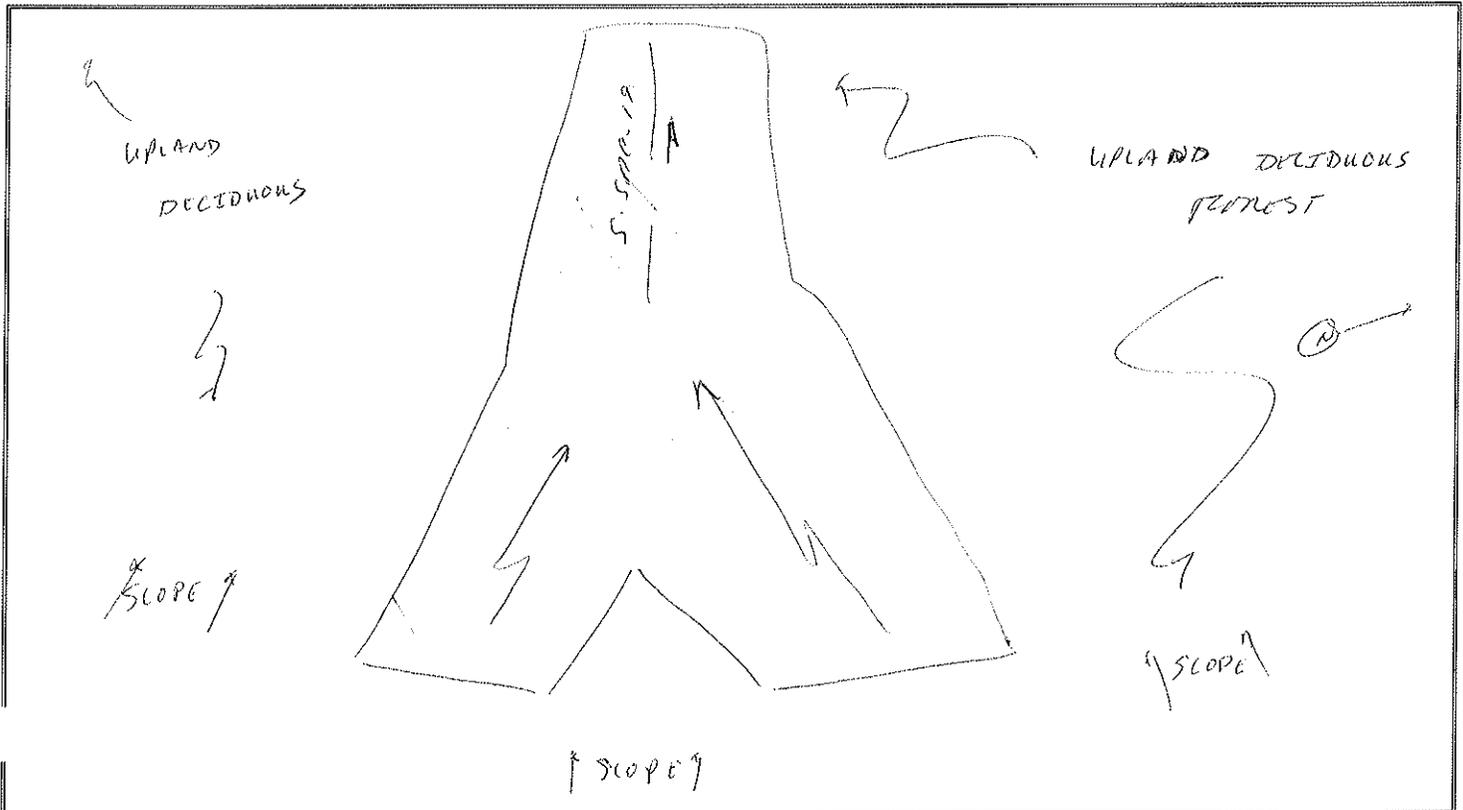
HYDROLOGY

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"/> Stream, Lake, or Tidal Gauge
<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Aerial Photographs	<input type="checkbox"/> Other - (i.e., well data)
<input type="checkbox"/> Thin Muck Surface (C7)	<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: 6 (in)
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: ASSOCIATED W1 S-SRC-19

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SAC-09

VEGETATION

#	All Stratum Species Common Name (Genus species)	Absolute % Cover	Dominant Species	Indicator
1	BLACK CHERRY (PRUNUS SCROTORUA)	30	Y	FACU
2	WHITE OAK (QUERCUS ALBA)	30	Y	FACU
3	SUGAR MAPLE (ACER SACCARINUM)	30	Y	FACU
4	WITCH HAZEL (HAMAMELIS VIRGINICA)	10	N	FACU
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 - 3	1	1 1 1		
3 - 5	7.5YR 3/3 1 100	- 1 - 1 - 1 -	-	SILTY CLAY
5 - 10	10YR 4/6 1 100	- 1 - 1 - 1 -	-	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: REFUSAL @ 10" DUE TO TREE ROOTS. WETLAND SOIL IS NOT PRESENT @ SAMP.				

HYDROLOGY

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



W-SRC-09 overview, facing northeast.



W-SRC-09 overview, facing southwest.



W-SRC-09 wetland soil test pit.



W-SRC-09 upland soil test pit.

WETLAND W-SRC-10

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

Project/Site: Allegheny Tunnel		Date: 05.18.2012	
Applicant/Owner: PTC		County: Somerset	
Investigator(s): SAC, ILE, DIM		State: PA	
Cowardin Classification (Percentage): PFO (100)		Wetland ID #: W-SAC-10	
Climatic/Hydrologic Conditions Seasonally Typical?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are "Normal Circumstances" present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology significantly disturbed (Atypical)?			
Are <input type="checkbox"/> Vegetation, <input type="checkbox"/> Soils, or <input type="checkbox"/> Hydrology naturally Problematic?			
NWI Classification: - (if applicable)			
Landform/Geomorphic Setting (Check All That Apply)			
<input type="checkbox"/> Built-up Land/Fill Area	<input type="checkbox"/> Terrace		
<input type="checkbox"/> Agricultural Drainage Swale	<input checked="" type="checkbox"/> Within Stream Channel		
<input checked="" type="checkbox"/> Hillslope Seep/Spring	<input type="checkbox"/> Floodplain		
<input type="checkbox"/> Toe-of-Slope/Hydrologic Jump	<input type="checkbox"/> Alluvial Fan		
<input type="checkbox"/> Closed Topographic Depression/Isolated System	<input type="checkbox"/> Delta		
<input checked="" type="checkbox"/> Hydrologically Connected to Other Aquatic Resources	<input checked="" type="checkbox"/> Other - S SAC-20		
Slope: 5 %		Land Relief: <input checked="" type="checkbox"/> Concave <input type="checkbox"/> Convex <input type="checkbox"/> None	
Latitude: Longitude:		Datum:	
No. of Flags: 12		Photographs (with Direction of Photo or Description)	
Open Ended Flag Nos. N/A		1 - E	3 -
		2 - W	4 -
Remarks: ASSOC. W/ S-SAC-20			

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is the Sampled Area Within a Wetland?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Remarks: CANOPY @ ~75% - TREES (BL. CHERRY, WH. OAK) OUTSIDE OF BOUNDARY					

NOTE:

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

DATA FORM – ROUTINE WETLAND DETERMINATION

WETLAND ID #: W-SAC-10

VEGETATION

#	Tree Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator	Dominance Test Worksheet	
					# of Dominant Species that are OBL, FACW, or FAC?	
1					2	(A)
2					2	(B)
3					100	(A/B)
4					Prevalence Index Worksheet	
5					Total % Cover of:	Mult. by:
6					OBL species	1 =
					FACW species	2 =
					FAC species	3 =
					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 @ 75% - WHERE OAH AND BLACK BERRY IMMED. OUTSIDE OF BOUNDARY. FOR USACE SUPPLEMENT, PFD REQ. 70% CANOPY PROVIDED BY TREES IMMED. OUTSIDE OF WETLAND BOUNDS.	
#	Herb Stratum Species Common Name (<i>Genus species</i>)	Absolute % Cover	Dominant Species	Indicator		
1	FALCATED SEDGE (<i>CAREX CLIVATA</i>)	60	Y	OBL		
2	NEED GR. SEDGE (<i>CAREX SEEDATA</i>)	20	Y	OBL		
3	SENSITIVE POON (<i>ONDURA SENSIBILIS</i>)	10	N	FACW		
4	APP. BL. VIOLET (<i>VIOLA ADONCAMPENSIS</i>)	NOTED	N	FACU		
5	GOLDEN RAGWORT (<i>SP. NOTED AUREUS</i>)	10	N	FACW		
6						
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-520-10

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 - 8	7.5YR 4/2 100	- / - / - / -	-	SALTY CLAY
8 - 12	10YR 4/2 100	- / - / - / -	-	SALTY CLAY
-	/	/ / /		
-	/	/ / /		
-	/	/ / /		
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains Location: PL = Pore Lining and M = Matrix				
HYDRIC SOIL INDICATORS (Check All That Apply)				
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Polyvalue Below Surface (S8)		
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Thin Dark Surface (S9)		
<input checked="" type="checkbox"/> Sulfidic Odor (A4)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)		<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> 2 cm of Muck (A10)		<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)		<input type="checkbox"/> Iron-Manganese Masses (F12)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Umbric Surface (F13)		
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Piedmont Floodplain Soils (F19)		
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Other		
<input type="checkbox"/> Dark Surface (S7)				
INDICATORS FOR PROBLEMATIC HYDRIC SOILS (Check All That Apply)				
<input type="checkbox"/> 2 cm Muck (A10)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Piedmont Floodplain Soils (F19)		<input type="checkbox"/> Other		
<input type="checkbox"/> Red Parent Material (TF2)				
Hydric Soil Present?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks:				

WETLAND ID #: W-SRC-10

HYDROLOGY

WETLAND HYDROLOGY INDICATORS

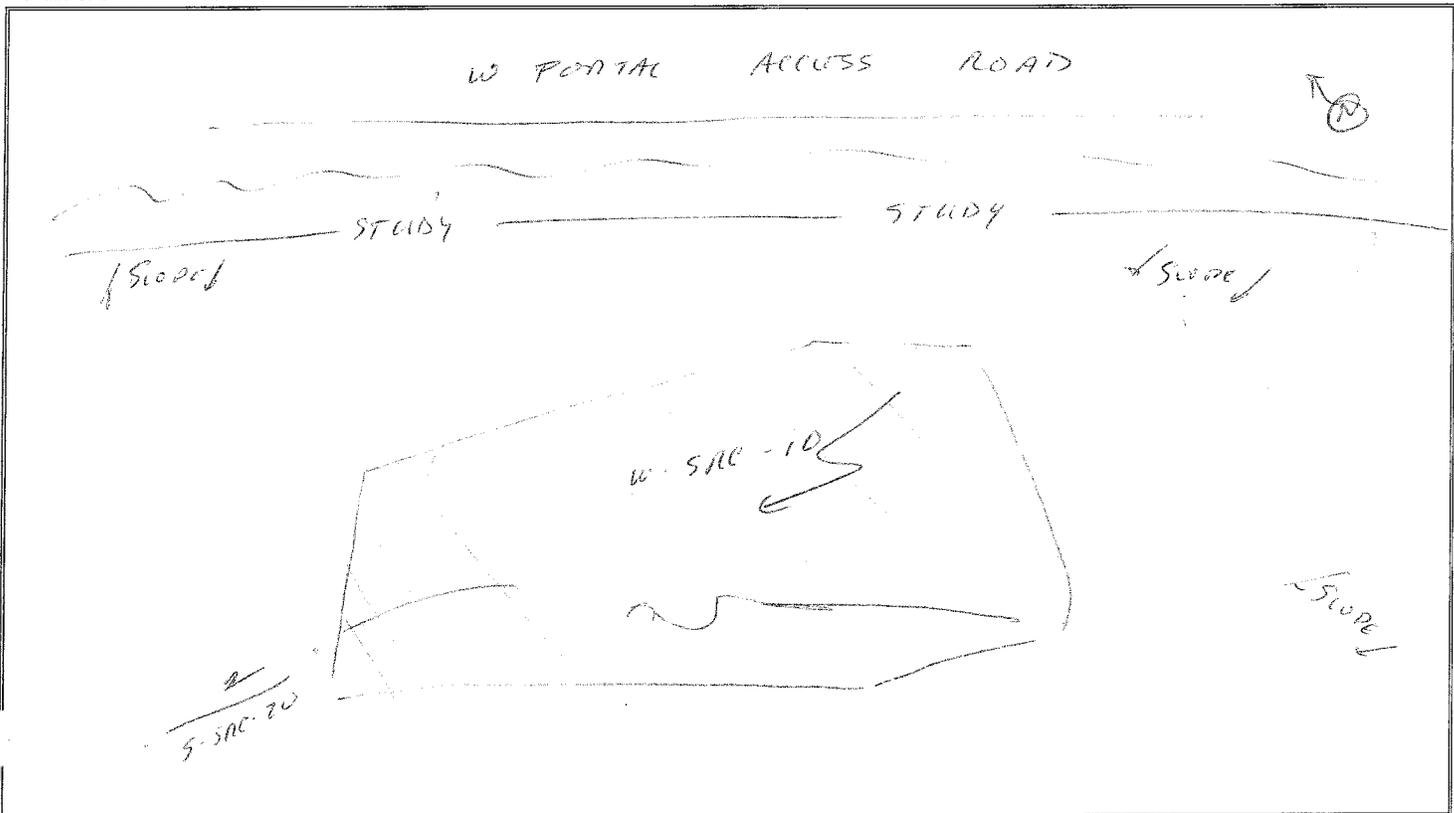
Primary Indicators (1 or more required)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>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

FIELD OBSERVATIONS

Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth of: 3 (in)
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: ASSOC. w/ S-SRC-20 - JURISDICTIONAL

PLAN VIEW SKETCH



UPLAND DATA SHEET – ROUTINE WETLAND DETERMINATION

WETLAND ID #: Upland Data Point

W-SAC-10

VEGETATION

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

SOILS

Soil Survey Map Unit Name/Symbol:		Drainage Class:		
PROFILE DESCRIPTION				
Depth Range (in)	Matrix Color / %	Mottle Color / % / Type / Loc	Mottle Abundance / Contrast	Texture
0 - 2	- 1 -	- 1 - 1 - 1 -	-	-
2 - 4	10YR 3/3 1 100	- 1 - 1 - 1 -	-	SILTY CLAY
4 - 8	7.5YR 4/6 1 100	- 1 - 1 - 1 -	-	SILTY 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: <i>REFUSAL @ 8" DUE TO ROOTS, NO WETLAND SOIL INDICATORS @ SAMPLE.</i>				

HYDROLOGY

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

